East Engr. Library

PAPER TRADE JOURNAL

Vol. LXXXVI, No. 2 JANUARY 12, 1928 Per annum $4.00 Per Copy 10 cents

PERKINS-GOODWIN CO.

Established 1846

551 Fifth Ave. NEW YORK

OBBOLA

KRAFT PULP

"—40%

more coal was burned in the old plant of the Bogota Paper & Board Company, Bogota, N. J. than is being burned in the new."

Coxe Stokers—

Cut Paper Mill Steam Costs

Coxe Stokers installed under three 518 h. p. horizontal water tube boilers replaced one installation of four 200 h.p. units and one of two 300 h.p. units. The following statement is from a report on the Coxe Stoker installation written by the General Superintendent of the plant:

"The Coxe Stokers permit the burning of much cheaper grades of fuel, and during the two coal strikes since 1922 (the year in which the installation was made), a full head of steam was maintained, burning the finest screenings, known as Silt. Whereas in the old boiler plants No. 1 and No. 2 Buckwheat were burned, in the new boiler plant No. 3 grade anthracite is used, having a B. t. u. value of 11,500. Forty per cent more coal was burned in the old plant than is being burned in the new. The turnover in personnel and the number of men required on the boiler room force were reduced."

Combustion Engineering Corporation

International Combustion Building — 200 Madison Avenue New York

A SUBSIDIARY OF INTERNATIONAL COMBUSTION ENGINEERING CORPORATION

Entered as second class matter August 13, 1925, at the Post Office at East Stroudsburg, Pa., under Act of Congress of March 3, 1879. ESTABLISHED 1872 FIFTY-SIXTH YEAR Published every Thursday by the Lockwood Trade Journal Co., at 34 N. Crystal St., E. Stroudsburg, Pa. EXECUTIVE AND EDITORIAL OFFICES: 10 East 39th STREET, NEW YORK CITY. CHICAGO: 123 West Madison Street, Chicago, Ill.

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SIXTH YEAR

Published Every Thursday by the

LOCKWOOD TRADE JOURNAL CO., Inc.

LESLIE R. PALMER, President — GEO. S. MACDONALD, Vice-President & Treas. — F. K. HOPPIE, Secretary

Executive and Editorial Offices: 10 East 39th Street, New York
Chicago Office: Room 14, Suite 410, 123 West Madison St.

TABLE OF CONTENTS

Copyright, 1928, by Lockwood Trade Journal Co., Inc.

Hinde & Dauche Buys Seven Plants 23
Price Bros. May Operate Donnacona Plant 24
Completes Survey of Manitoba Pulpwood 24
Kimberly-Clark Niagara Mills Fine Record 24
Wisconsin Paper Industry Optimistic 26
Two Well-Known Firms Consolidate 26
Receiver for Multitone Paper Corp 26
Chicago Trade Experiences Seasonal Lull 28
Program of Industrial Expansion 28
Boston Paper Market Rules Firm 30
New England Paper Merchants to Meet 30
Bryant Paper Co. Entertains Paper Men 30
Ontario Mills Booked Some Weeks Ahead 32
Big Operations in Pulpwood 32
Fort Frances Action Set Over 32
Paper Trade Fair Last Year in Philadelphia 34
Acquires Control of Garrett-Buchanan Co. 34
Fire Destroys Norristown Mill 34
Lang Paper Co. to Move Equipment 36
Paperboard Industries Association to Meet 36
Construction News 38
Gummed Tape Trade Customs 40
Power Plant Section **42**
New York Trade Jottings 49
Editorial **50**
Interest Increases in Government Paper Bids 51
Canadian Paper Exports Increase 51
Technical Section
Power Requirements of Paper Machines 53
United States Patents in Papermaking 56
Drive for Paper Machine Driers 57
Built Up Fiber Board Tester 59
Water Resistance of Papers 60
Current Paper Trade Literature 61
Cost Section **63**
Obituary 68
Imports of Paper and Paper Stock 70
New York Market Review **74**
Miscellaneous Markets **76**
Market Quotations **78**

THE PAPER TRADE JOURNAL is indexed in Industrial Arts Index

Want and For Sale Advertisements 81, 82, 83, 84

ELMENDORF

1928 PAPER INSURANCE

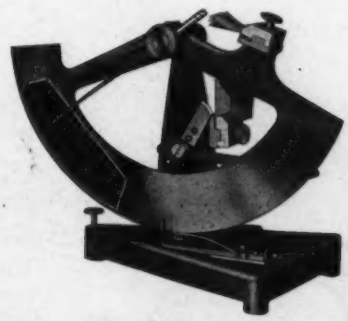
The Elmendorf Paper Tearing Tester will insure you against paper losses. It does what all other paper testers fail to accomplish—it shows up the very small variations These are what really count.

In this way, uniform paper quality is assured all the time.

Simplicity, consistent accuracy and dependability are outstanding features of the Elmendorf.

Bulletin Seventeen tells all about it. Write for it TODAY

Thwing Instrument Co.
3341 Lancaster Avenue
Philadelphia, U. S. A.



ELMENDORF PAPER TEARING TESTER

A clean cut with the DOWD "SPECIAL-A"

The Dowd "Special A" is giving complete satisfaction in hundreds of paper mills where 100 per cent accuracy is desired in paper knives.

Then, too, this knife (due to its scientifically correct heat treatment and temper) holds its edge and requires less re-grinding. Therefore, in addition to great accuracy, the "Special A" gives maximum service.

Try America's leading paper cutting knife for 10 days. If it does not satisfy you in every way, return it at Dowd's expense.

DOWD KNIVES YOU BELOIT, WIS. U.S.A.

R. J. Dowd Knife Works

Makers of Better Cutting Knives Since 1847

Beloit, Wisconsin

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. LXXXVI, No. 2 Thursday, January 12, 1928

Hinde & Dauche Paper Co. Buys Seven Plants

Acquires Factories of J. M. Raffel Co., at Baltimore, and Thompson & Norris Co., at Montreal, Toronto, Boston and Brooklyn, in Addition to Large Straw Paper Mill and Box Factory at Brookville, Ind.—Now Possesses 28 Distinct Manufacturing Units in United States and Canada—Policy of Founders Laid Foundation for Development

SANDUSKY, Ohio, January 9, 1828.—A persistent rumor of prospective expansion of a local industry was confirmed last Tuesday by President Sidney Frohman, of The Hinde and Dauch Paper Company, who announced the successful conclusion of negotiations which his company had been conducting, during the past year, for the acquisition of seven additional plants in the East, the Middle West and Canada.

Plants That Have Been Added

The plants thus added to the present Hinde and Dauch properties are those of the J. M. Raffel Company, at Baltimore, Maryland, and the Thompson and Norris Company, with factories in Brooklyn, N. Y.; Boston, Mass.; Toronto, Ont.; and Montreal, Que., and a large straw paper mill and box factory at Brookville, Indiana. Title to these properties passes to Hinde and Dauch interests during the present month.

Wide Extent of Operations

The acquisition of these added facilities extends the operations of the Hinde and Dauch interests from the Missouri River to Boston Bay, the Chesapeake and the St. Lawrence, and will increase the output of Hinde and Dauch manufactured products by fully 30 per cent. As a result of this purchase, the Hinde and Dauch interests now have box factories located at Boston, Brooklyn, Philadelphia, Baltimore; Montreal and Toronto, Canada; Cleveland and Sandusky, Ohio; Muncie, Indiana and Kansas City, Kansas.

Plants Supplied by Company's Paper Mills

These plants will be supplied by the company's paper mills situated at Gloucester, N. J.; Watertown, N. Y.; Toronto and Trenton, Ont.; Sandusky and Delphos, Ohio; Muncie and Brookville, Ind., and Fort Madison, Iowa. With the addition of the company's material-grading plant in Philadelphia, Hinde and Dauch facilities now include twenty-eight distinct manufacturing units, situated in the nine states and two Canadian provinces which comprise the industrial section of North America.

Box Makers of Reputation

The Thompson and Norris Company, now to be merged with the Hinde and Dauch interests, is one of the oldest concerns in the fiber board industry. Before the introduction of the corrugater fiber freight shipping box by the Hinde and Dauch Paper Company in 1905 and 1906, Thompson and Norris were box makers of reputation and long standing. Taking up the new corrugated freight container, they joined with the Hinde and Dauch concern and others in the pioneer work which finally resulted in the general recognition of the corrugated fiber package by shippers and carriers alike. The present Thompson and Norris Company enjoys a well earned reputation as a substantial and reliable concern whose traditions are in line with those of the Hinde and Dauch organization and whose large circle of friends and patrons will impart added strength to the consolidation.

The J. M. Raffel Company also has acquired an excellent reputation and a large and growing trade. Its management has been sound and progressive and is to be retained in active conduct of the business. A very large part of the trade heretofore served by the Hinde and Dauch Paper Company is in the North Atlantic States where the plants of these two companies will function to the great advantage of all concerned.

Big Expansion in Forty Years

Beginning business forty years ago, in a small rented paper mill, the Hinde and Dauch Paper Company has grown steadily to its present international proportions. At its inception its founders adopted a sound financial policy which, coupled with the tireless energy which actuated them, and which inspired their entire organization, laid the foundation for after development which has kept the Hinde and Dauch Paper Company at the head of the corrugated fiber industry.

Organization of Specialists

In commenting upon the matter, Mr. Frohman attributed the continued growth of the company very largely to the building of an organization of specialists, expert in their respective lines, trained in team work and imbued with that rare combination of conservatism and enthusiastic energy which makes progress steady and sure. "From the first," said he, "the company has aimed at symmetrical development, rather than at rapid growth." He believed that thorough coordination, driving energy and accurate balancing of finance, production and distribution effort are essential in any successful industrial enterprise.

Mr. Frohman mentioned Vice Presidents Russell K. Ramsey and J. H. Macleod as having been actively instrumental in perfecting the plan under which the acquisition of the additional plants by the Hinde and Dauch Paper Company has been effected. He also spoke of other members of the Hinde and Dauch organization who are depended upon to perfect details of operation under the merger.

Price Bros. & Co. May Operate Donnacona Plant

Equity of $3,000,000 May be Put Into Property When Company Is Recapitalized—Quebec City Newspapers Print First Issues of Year on First News Print Manufactured In That City and Presented by Anglo-Canadian Pulp & Paper Co.—Manitoba Pulp Wood Survey

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., January 9, 1928.—As a result of the purchase of the Donnacona Paper Company, of Donnacona, Que., by the Royal Securities Corporation, of Montreal, it is stated here that there is a possibility of the company being operated as a subsidiary of Price Bros. & Co., of Quebec. With this in view it is said that the company will be recapitalized and that an equity of some $3,000,000 will be put into the property.

First News Print a Gift to Papers

The first news print ever manufactured in Quebec City was given to the local newspapers to print their first issue of the year. This news print came from the Anglo-Canadian Pulp and Paper Company, whose new mill is now in operation. The offer of the paper was made by L. W. Campbell, secretary of the Anglo-Canadian on behalf of F. Frank Clarke, vice-president, and R. A. McInnis, general manager. "The production of paper in Quebec City itself," stated Mr. Campbell, "is an event of great importance in the world of industry and in the industrial development of the City of Quebec."

Canadian Paper Men to Meet

Preparations are well advanced for the annual convention of the Canadian Pulp and Paper Association, which will take place in Montreal on January 25, 26 and 27. As usual, most of the meetings will be held in the Ritz-Carlton Hotel, but the Mount Royal Hotel has been selected for certain gatherings. The Woodlands Section will hold its sessions at the Mount Royal, and the annual smoker and cabaret dinner on Thursday evening will be held there.

The guest of honor at the annual convention luncheon at the Ritz-Carlton Hotel on Friday, January 27, will be Sir Charles Gordon, the newly-elected president of the Bank of Montreal. It has been the custom of the association to invite a representative newspaper publisher to take part in the annual banquet proceedings. In the past honors have been held by the American newspaper publishers, who were large consumers of Canadian pulp and paper products. Last year E. W. Butler, of the Buffalo *Evening News* and vice-president of the American Newspaper Publishers' Association, attended the banquet. The year before it was Col. R. R. McCormick, editor of the *Chicago Tribune*. This year John W. Dafoe, of Winnipeg, editor of the *Manitoba Free Press*, will give an address at the banquet.

The customary annual presidential review of the industry will be presented on the opening day of the Convention by President Wilson, and the keynote, it is said, is that 1927 was "the year of the greatest expansion in the pulp and paper industry in Canada."

Forestry experts will be brought together by the Woodlands section. Dr. C. D. Howe, professor of forestry, University of Toronto, will be a guest. At the section's convention luncheon, the guest of honor and speaker will be Professor S. T. Dana, dean of the forestry school, University of Michigan.

Technical issues will be deal with by the technical section, another division of the association. The section has arranged a programme of papers of particular interest to technical experts in the industry. At the annual luncheon of the section, the speaker will be R. A. McInnis, of the Anglo-Canadian Pulp and Paper Company, Limited, Quebec, whose topic will be: "The Trend of Management in the Paper Industry."

It had been hoped that the Convention would be held this year in the new Pulp and Paper Research Institute at McGill University. One building, however, is not yet completed, but it is expected that it will be opened for use not later than April. It is planned to have all the delegates inspect the institute.

Members of the committee of arrangements for the annual convention are: L. R. Wilson, of the Abitibi Power and Paper Company, president of the association; Brig.-Gen. J. B. White of the Canadian International Paper Company; Geo. M. McKee, of the St. Maurice Valley Corporation; A. P. Costigane, Chairman of the Technical section; and W. McE. Bowden, chairman of the woodlands section.

Anticosti Corp. to Ship 200,000 Cords

About 200,000 cords of pulp wood will be shipped next summer by the Anticosti Corporation. The corporation is one of the few organizations which carries out cutting operations in the summer time, this being possible by the absence of flies and mosquitos and to the fact that in this island in the Gulf of the St. Lawrence weather conditions keep the vegetation moist and thus materially reduce the fire hazard.

Cutting began June 15 last, and the latest report shows that some 140,000 logs have been cut. The total cut will be brought up to 160,000 cords, which, with the logs left over from last year's drive, will bring the total shipments in 1928 up to 200,000 cords. The pulp wood is taken by agreement by the three parent companies, namely the St. Maurice Valley Corporation, the Port Alfred Pulp and Paper Corporation, and the Wayagamack Pulp and Paper Company.

Complete Survey of Manitoba's Pulp Wood

The Hon. Charles Stewart, Minister of the Interior, has announced that his Department will carry out a complete survey of all pulp wood in Manitoba. This decision is the result of an application by the Manitoba Paper Company for the Department to increase its pulp wood holdings to 6,000,000 cords. The berth which the company now holds has been found by Government cruisers to have only 3,000,000. Hence there is a shortage of 3,000,000 cords to be made good. The Manitoba company is very eager to invade the Nelson River and Saskatchewan River berths, but Mr. Stewart has informed them that he will not permit these berths to be spoiled for separate development, except as a last resort. Very little actual information is available here about the pulp wood resources of either of these berths, and until Mr. Stewart knows the real situation in regard to the whole province he is not willing to make a devision. For this reason he has ordered a complete survey and has notified the Manitoba Paper Company that no further areas will be added to these present holdings until this is done.

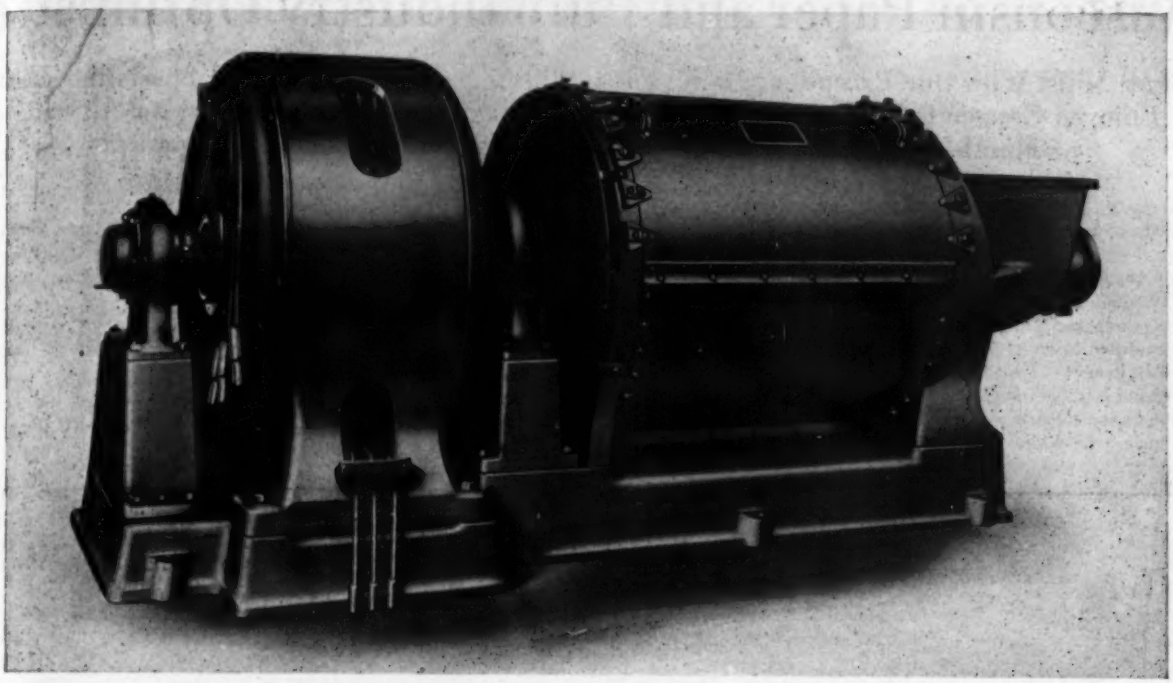
Kimberly-Clark Niagara Mills' Fine Record

APPLETON, Wis., January 9, 1928.—The Niagara Wisconsin mill of the Kimberly-Clark Company has the remarkable record of only two accidents since January 1, 1927, and no lost time accident since February 16, 1927. This mill has an average of 650 employees and has run continuously during the year.

During the above period the management secured two lyceum numbers which they gave free to their employes. In addition to the above program employees were given safety calenders for 1928.

In February the company ran an industrial eye survey on all employees with a recheck again in June, and have been conducting health examinations for the past twelve months.

In a plant of this size where every man feels he is responsible for not only his own safety, but that of his fellow workman, nothing but the best results can be obtained.



Lowest Cost Per Ton

The overall screening cost per ton is lowest with the Bird Pulp Screen.

Its exceptionally great capacity results in enormous savings in floor space in existing mills and reduced building costs for new mills.

You need Bird Pulp Screens.

Ask for screen room layouts and estimates.

BIRD MACHINE COMPANY
South Walpole—Massachusetts

Bird Pulp Screen

1611

Wisconsin Paper and Pulp Industry Optimistic

Larger Mills, With One Exception, Maintaining Full Time Schedule—Paper Specialties Have Enjoyed Greater Demand Than Stock Items—Marketing Recovery Expected Before End of Month—Reforestation and Additional Forest Fire Protection Advocated

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., January 7, 1928.—Although a considerable slump in demand was expected by paper and pulp mills of this vicinity after the holidays, conditions seem to be holding up to a point really beyond expectations. With one exception, the larger mills are maintaining a full time schedule and expect to continue thus during January. One mill which laid off 60 per cent of its help has returned to an 85 per cent output.

Stock items have not been so much in demand as the specialties. The hand-to-mouth buying policy of wholesalers has had its effect in the movement of goods, since there has been no buying to speak of during the taking of inventory. Optimism is very prevalent, however, for a marketing recovery before the end of this month, and for a good year during 1928.

Union Bag Rumors Denied

Rumors that the Union Bag and Paper Corporation's mill at Kaukauna, Wis., had been purchased by the Thilmany Pulp and Paper Company of the same city are denied by Karl Stansbury, of the latter company, and other officials. An inspection of new equipment at the bag mill by Thilmany officials is said to have led to the rumor.

Pulp Wood Movement Starts

Movement of pulp wood to mills of the Fox River Valley has started in earnest. At least 100 car loads are reaching Appleton, Wis., daily, and during the peak shipping period the total will be at least 300 daily. Most of the wood in the present shipments comes from Northern Wisconsin, but large quantities also are to be brought in by rail from Michigan, Minnesota and Canada.

Outlook for Wisconsin Mills

An opinion on the pulp wood outlook for Wisconsin mills has been expressed by C. J. McLaren, forester of the Tomahawk Kraft Paper Company, of Tomahawk, Wis. He declares that if some immediate reforestation steps are not taken, more Wisconsin mills will have to change products, or grow their own timber. He believes that ten years will bring much keener competition than now in the wood buying activity.

"As far as depending on Canadian wood to help out our supply is concerned," says Mr. McLaren, "it is out of the question. Canadian wood undoubtedly will have an export duty placed upon it larger in amount than what we have now. Our only salvation is to grow timber and protect what we have.

"On some 52,000 acres of jack pine land north of Tomahawk, it would be possible to produce enough wood annually to run both of the mills at Tomahawk without any other source of supply. With 200,000 acres of timberland available in tributary community, there would be no need for worry."

Mr. McLaren also advocates additional forest fire protection, a reduction of land values, and a still greater revision of taxes on timber lands and timber.

Paper Mill Safety

Further efforts toward paper mill safety will be expended when the annual Foremen's Safety School opens on January 18 at Appleton, Wis. An extensive industrial course has beeen outlined, dealing with all phases of this problem. Weekly sessions will be held until March 14.

A. S. McArthur, of the educational department of the Kimberly-Clark Company, Neenah, Wis., will be the speaker at the opening session, taking up a discussion of the "Psychology of Safety."

Other topics and speakers for later meetings will be: "Significance of Safety," J. H. Slater, of Escanaba, Mich.; "A Successful Safety Campaign," F. H. Rosebush, Port Edwards, Wis.; "Safety and Production," George Roller, Rhinelander.

Those who will act as chairmen of the paper and pulp section will be: H. G. Boon, Kimberly-Clark Company; N. H. Bergstrom, Bergstrom Paper Company, Neenah, Wis.; M. G. Hoyman, Kimberly-Clark Company, Neenah, Wis.

Two Well-Known Firms Consolidate

Two of the oldest and best known firms in the binders board industry, the Davey Company of Jersey City, N. J., and the Kerr Paper Mill Company of Downingtown, Pa., have found it to their mutual advantage to consolidate their organizations. The new firm will be known hereafter as The Davey Company.

The combination gives the new company greater facilities for large volume production and for economical distribution, which will work to the advantage of the whole consuming trade. Since both of the merged companies have been in the families of their founders for many years, the history of the new company is an interesting one—and it is equipped to furnish unusual service.

It was in 1842 that the first Davey mill was started by William B. Davey, in Bloomington, N. J. In those days the power was furnished entirely by water. Boards were made by hand, dried on the hillsides during the summer, and finished indoors during the winter months. Five generations of the family of William B. Davey have managed the company he started. One of his sons started the W. O. Davey & Sons Company in Jersey City, N. J., passing it on to his sons at the time of his death. In 1923 the two Davey companies were consolidated into the one which has now consolidated with the Kerr Paper Mill Company.

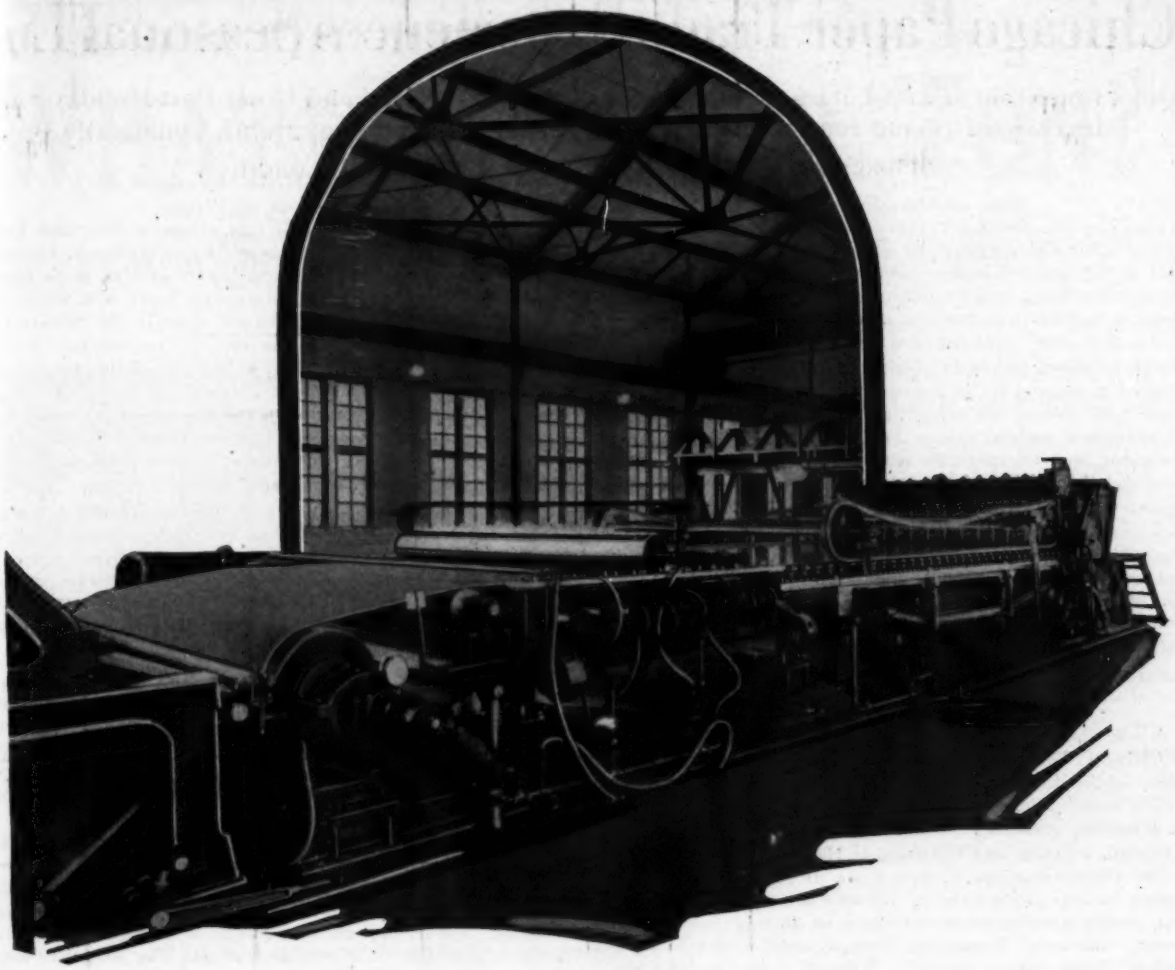
In 1880, William Kerr started a mill at Downingtown, Pa., on the present site. He ran this mill until it was destroyed by fire in 1907. It was then replaced by a more fire-proof building, and the Kerr Paper Mill Company was organized, starting with a single machine having a capacity of two tons per day. The demand for Kerr board increased rapidly, and more and more machinery was installed. In 1925 individual motor drives were added, which made it possible to increase the production and to improve the board still further. The Kerr Paper Mill Company has constantly improved the quality of its boards, by research, new machinery and improved methods. It is recognized throughout the trade as one of the most modern and efficient board mills in the country.

Both of the companies in the new consolidation have been making boards of the highest quality for many years. They bring to the new company a combined total of one hundred and thirty-four years manufacturing experience. It is a company well equipped to carry on the traditions of the founders and to render improved service to the whole consuming trade. The officers are: Allison Dodd, chairman of the board! Leigh H. Davey, president; Edward Kerr, Jr., William O. Davey, and E. Davey Dodd, vice-presidents; and John A. Dodd, secretary and treasurer.

Receiver for Multitone Paper Corp.

[FROM OUR REGULAR CORRESPONDENT]

COHOES, N. Y., January 9, 1928.—The American Multitone Papers Corporation, which has operated a plant in the Ogden Mill on Ontario street for the past three years, is in financial difficulties it is charged in an equity suit filed in Federal Court at Utica by John C. Kerr and Robert C. Kerr, of Montclair, N. J., creditors for $20,000. Federal Judge Frank Cooper appointed Lewis F. O'Neil of Albany as receiver. The liabilities include $50,000 in unsecured claims and $8,000 on a chattel mortgage.



Breakdowns Cut your Profits

Breakdowns usually occur at the most inopportune time—when the machine is being forced to the limit to meet a difficult production schedule.

In a paper machine, the vital factors for assurance of 24-hour-a-day reliability over the longest period of time are experienced design, careful selection of materials and precision workmanship.

The illustration shows the suction boxes and the Kilberry Suction Couch Roll on one of our latest machines, a Keystone Removable, Adjustable, Shakable Fourdrinier.

Downingtown Machines (Fourdrinier & Cylinder) incorporate progressive design for economical production and a strict observance of the factors that are essential for reliability.

Our Products Meet Our Promises

KEYSTONE Fourdrinier

Downingtown Mfg Co. Downingtown Pa.

Chicago Paper Trade Experiences Seasonal Lull

Quiet Condition of Local Market Attributed to Inventory Period and Usual Post Holiday Slump —Increased Demand for Various Grades of Paper Before End of Month Confidently Predicted—Board Market Continues in Excellent Condition

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., January 9, 1928.—Some two weeks will have to elapse before Chicago paper houses are to be restored to normalcy and to the expected improvement in business conditions. Inventory will probably take up that entire interval and then, from all reports, business will begin to pick up immediately.

All lines have experienced a slump following Christmas but every indication points to quick improvement. News print has slacked in demand but is looked to enter on its best year just as soon as inventories are over. Fine paper is in a sound condition. Various signs point to increased demand before the month is over. Inquiries from the trade, the stimulus felt in other lines of business and the stability of the present market all give rise to optimism. There is hardly any demand for book paper at this time but it is expected to rise along with other lines. Tissues and wrapping paper sold exceptionally well right up to Christmas afternoon. Both will probably be light until the middle of the month and then they are expected to return to the same good condition that prevailed just prior to the holidays. The board market is excellent and only inventories keep it from continuing at its very satisfactory pace.

New Paper Manufacturing Concern

A new paper manufacturing house is to begin operations shortly in Chicago. The name of the firm will be the Middle States Paper Mills, Inc., and it will manufacture the advertising wrapper known as "Adwrap." The officers of the company are as follows: Edgar L. Hamilton, president; Daniel D. Madden, vice-president; Coler Campbell, secretary, and Woodman C. Hamilton, treasurer.

The Pilcher-Hamilton Company are to be the exclusive sales agents for this product and at this time are arranging territories and placing distributors in the states of Illinois, Indiana, Wisconsin, Michigan, Minnesota, Iowa, Kansas, Nebraska, South Dakota, North Dakota, Kentucky, Missouri, Arkansas and Ohio.

In view of the fact that the production of Adwrap will be limited, and will be kept so, the Pilcher-Hamilton Company are only placing this line with merchants who will rigidly adhere to the sales policy that they set forth. This fact will undoubtedly make the new product a very satisfactory line to sell for many years to come.

"Chicago Tribune" Printing Rag Paper Edition

For a limited edition every morning, the Chicago *Tribune* is going back to the style of news print used in Ben Franklin's day, paper made of rags, which lasts "forever." The immense circulation of the modern newspaper has made the use of rag paper almost prohibitive because of its cost. However, in this feature edition, the *Tribune* intends to print an imperishable record of the troubles, news events and problems of today for historians of the next generation. The cost of the special edition is 75 cents a copy for the daily paper, $2.00 for the Sunday *Tribune*. Annual subscriptions for the daily will be $100 and for Sunday $100. The daily and Sunday will cost $200.

This edition is the result of long experimenting in the preservation of *Tribune* files. Recently the big Chicago daily has been treating its old files with a rice pulp mixture that adds texture but becomes brittle at the edges, making the paper impossible for photography. The new paper is softer than wood pulp, it is said. It does not crackle or stand up but does reproduce perfectly and is said to keep as long as anything that is printed with the exception of parchment. The paper, made of rags, is made in eastern mills which have been experimenting with the paper for a year or more.

News of the Trade

The quarterly publication of mill prices on Westvaco Brands made by the West Virginia Pulp and Paper Company, was issued January 3. Prices on 22 different grades of high grade printing papers were listed. A new feature, that began with the October issue of the price lists, is carried out again in the January Price List. Footnote references to the issue of "Inspirations for Printers" in which various Westvaco papers are exhibited are carried in the Mill Price List. This plan carries the prices and physical descriptions directly in line with the demonstrated printing characteristics of Westvaco papers. By this means, the publisher, advertiser and printer can select from his files actual examples of the adaptability and suitability of Westvaco papers.

Harry Abell, recently with the Gerlach-Barklow Company, of Joliet, Ill., makers of calendars and greeting cards, and formerly with Bradner-Smith & Co., is now in the sales department of the Swigart Paper Company, Chicago. Mr. Abell has had a great deal of experience in the paper field that will undoubtedly stand him in good stead in his connections with the well known Chicago paper house.

The Chicago Paper Association will hold its first meeting of the new year tomorrow evening, January 10. A large attendance is expected and the Association will probably outline its program for the coming year. Only a young organization, the Chicago Paper Association has done much to better its market in this city and is expected to make rapid strides in 1928 under the leadership of Leo S. Altholz, newly elected president.

Mr. Blackley, of the Beveridge Paper Company, Indianapolis, Ind., visited in Chicago for a few days this week.

The Menasha Printing and Carton Company and Robert Gaylord, Inc., have moved their offices from Room 1123, Conway Building. Robert Gaylord, Inc., makers of corrugated fiber boxes, are now located at 168 West Adams street. The Menasha Printing and Carton Company has moved to Room 1060, the Wrigley Building.

Bob Butterworth, of the Champion Coated Paper Company, has been out of Chicago all week spending most of his time in Des Moines, Iowa.

George S. Johnston, of the Western Newspaper Union, Omaha, was in Chicago two days of this week.

Alexander Thomson, vice president of the Champion Coated Paper Company, Hamilton, Ohio, is expected in Chicago next week.

Program of Industrial Expansion

[FROM OUR REGULAR CORRESPONDENT]

OSWEGO, N. Y., January 3, 1928.—A five year individual expansion program in Oswego started by the Carlisle interests is expected to add millions of dollars to the capital already invested in local industrial property. The program includes the erection of new mills and water power development along the Oswego River. The Carlisle concern now has under construction large plants for the Taggart-Oswego Paper and Bag Corporation, Oswego Board Corporation, and a hydro electric development at the High Dam. The Carlisle interests own more than 200 acres of land in this city which is held by the Oswego Industries Corporation as the location for additional industrial projects as they may develop.

Floyd C. Carlisle, head of the Carlisle interests, in a recent letter to Mayor Conway of Oswego declared that their industrial program started in Oswego already represents an investment of more than ten million dollars and stated that their program of building industries in Oswego on a very large scale is but started.

WHAT PRICE PER TON?

WHAT DOES IT COST PER TON IN YOUR BEATER ROOM?

Dilts NEW TYPE Beaters on Kraft

A certain mill in the middle west has effected beater power saving of 31.7% per ton of stock after installing Dilts NEW TYPE Beating Engines.*

Other mills using Dilts NEW TYPE Beaters show similar good results.

How can *you* meet competition against those mills if you continue to operate with your old beater equipment? Your cost per ton will be too high.

*See Page 27, *The Paper Trade Journal*, issue of Dec. 15th.

In the year just ended, the sales of Dilts Beating Engines increased 117% over the previous year.

There is no question about the superiority of the Dilts NEW TYPE Beating Engines, and the progressive mills are rapidly installing them.

You should fall in line. "Your paper is made in your beaters." You are vitally interested in reducing your cost per ton.

Among 1927 sales are NEW TYPE beater equipments to the following mills:

The Southern International Paper Co., Backus-Brooks Company, Lincoln Pulp & Paper, Ltd., Tumwater Paper Mills Company, St. Regis Paper Company, West Jersey Paper Manufacturing Company, Howard Smith Paper Mills, Ltd., Grays Harbor Pulp & Paper Company, U. S. Rubber Company, Southern Advance Bag & Paper Company, E. B. Eddy Company, Ltd., National Paper Products Company, Provincial Paper Mills, Ltd., Consolidated Paper Company, United Paperboard Corporation, International Fibre Board Company, Ltd.

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

Boston Paper Market Rules Generally Firm

Due to Net Profit Control Methods Profits Are Possibly More Satisfactory Than of Yore—Fine Paper Trade Experiences Greater Activity—Coarse Paper Section Remains Quiet After Stock-Taking—Greater Volume of Box Board Business Reported

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., January 9, 1928.—The paper market is generally firm, with possibly more activity in the fine lines than in others. The year just ended has been approximately like the previous year, according to statements in the trade. Profits are possibly a bit more satisfactory at the present time, due to the agitation in regard to "net profit control." With the erection of new mills, indications are that prices will remain at about the same levels and that they cannot reasonably be expected to increase.

Coarse paper is quiet after stock-taking. It is stated that there is a considerable over-production with mills from the Coast coming into the market, tending to keep down values of Southern kraft. No. 2 kraft is now quotable at .04¼ to .05 compared with a previous range of .04¼ to .05½.

There is a greater volume of business in box board, at least in some quarters. A box board man says that canvassing the trade finds many taking inventories. Slim supplies on hand have resulted in the placing of orders for a considerable volume of tonnage. Prices remain the same.

Twine Business Active

Since the first of the year there has been more or less activity in twine. A substantial amount of business has been placed for January and February delivery. Much progress has been made in the last two years in standardizing sizes and put-ups, but there is still room for further improvement.

Paper stock is comparatively quiet. No. 1 mixed paper has suffered a further decline, due to an abundance of supply, and is now quotable at .47½ to .52½ per hundred pounds, f.o.b. Boston.

Bagging is rather inactive. The manila rope market is reported as very dull, with practically no call for small rope or mixed strings. The prevailing price for domestic manila rope is 3.50, particularly for that of ⅝ of an inch and more in diameter.

Rag Market Conditions

In the new domestic rag market, dealers say it is difficult to buy white shirt cuttings at 10½ cents, and that while contract bids may be made at 9 to 10 cents, they are not getting the stock. It is stated in the trade that if one or both of two developments take place, the price of No. 1 shirt cuttings will tend to rise, or at least become firmer. One of these possibilities is the entrance of the Eastman Kodak Company into the market to buy 400 or 500 tons of material. Another influence would be felt in the stiffening of cotton, in which event the garnetters will buy hosiery stock and force the paper mills to pay a price equal to that of the garnetters. If neither of these developments takes place, the trade will look for lower prices.

In domestic rags scrap canvas is moving slowly. The accumulation of this commodity is small, owing to the fact that sailing craft are diminishing in number. There is practically no change in the foreign rag situation.

New England Paper Merchants to Meet

The annual meeting of the New England Paper Merchants Association is to be held at the Harvard Club of Boston Thursday, January 12, at 6 o'clock, according to notices sent out by Secretary Floyd Blackman. President C. A. Esty has prepared a most interesting program with short snappy talks on certain phases of association work by some of the members. The election of officers for the coming year will be held and the annual reports made. The members outside of Boston are becoming more active all the time and will be represented among those who are to give short talks.

Storrs and Bement Co. to Move

The Storrs and Bement Company, in business for eighty years, has issued a brochure, entitled "Old Paper Merchants in New Quarters," announcing the prospective removal of the paper warehouse and general offices to 282 Congress street. The firm is now at 140 Federal street. In this announcement, President W. B. Stevenson states that Amariah Storrs established the business eighty years ago on Cornhill which at that time was the center of printing activity. Following the changes of printing centers, the concern located on Franklin street and later on Federal street.

The new location is in the immediate vicinity of printing activity, in the next building to that occupied by the American Type Founders Company. Elevated and subway trains and busses run from all parts of the city at frequent intervals to the South Station, one block from the new quarters. Congress street at this point is outside the congested retail district and it is not necessary for the trucks of the firm to pass through congested portions of the city to reach the shipping and receiving terminals or plants of many of its customers. Telephone facilities enable the operators to handle incoming calls in a most satisfactory manner. The firm operates large power cutters and a department for the production of fine hand cut cards.

Sales Service Room

The sales service room on the second floor is spacious, with ample equipment in the service department. Innovations include a "phone order desk," pneumatic tubes for shipping tickets, the best modern steel shelving for open stock, mechanically operated case piles and heavy floor construction for carrying case stock flat, insuring better printing qualities. The executive offices and credit departments are also on the second floor. The growth of the company is not due solely to management and resources, but largely to the loyalty and efficiency of the organization and the good will of customers and mill connections. The officers of the company are: W. B. Stevenson, president; W. N. Stetson, Jr., vice-president; Bryant McQuillen, treasurer; George L. Webb, assistant treasurer. Other offices of the company are in New Haven, Providence, Springfield, and Portland.

News of the Trade

Sales Manager Hulett and his assistant manager, Mr. Ezold, of the Chemical Paper Company, Holyoke, Mass., addressed a meeting of the salesmen of John Carter & Co., Inc., last week.

W. R. Ingersoll, of the Dill and Collins Company, Philadelphia, and T. Stewart Foster, of the Foster Box Board Company, Utica, N. Y., were in town last week.

Argonaut Cover, a very fine new line of paper cover, made by the Holyoke Card and Paper Company, is being distributed here by John Carter & Co., Inc., and Storrs and Bement Company.

Bryant Paper Co. Entertains Paper Men

[FROM OUR REGULAR CORRESPONDENT]

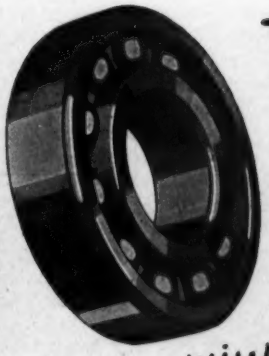
KALAMAZOO, Mich., January 9, 1928.—Members of the sales force of the Seaman Paper Company, Chicago, about 75 in number, have been guests of the Bryant Paper Company the latter part of the past week. The Park-American has been headquarters. There have also been numerous sales conferences in the Bryant administration building, with a big dinner and social session at the Park Club Thursday evening.

OBSERVERS predict that 1928 will be a period of industrial progress and increased production.

The paper making industry enters the year with an even more positive trend towards the use of anti-friction bearings than during the past twelve months.

New Departure's policy of helping the client to think out his problems—of engineering study of his needs before his sales are even considered. should help you to better machines and greater profits in 1928. Such service is offered you.

THE NEW DEPARTURE MANUFACTURING COMPANY
Bristol, Connecticut
Detroit
San Francisco
Chicago



New Departure
Quality
Ball Bearings

612

Ontario Paper Mills Booked Some Weeks Ahead

Orders for Shipment Speeded Up and Plants Generally All Well Employed—Following Holiday Season and Inventory Period, Business in New Year Has Started Off Encouragingly —Distributors of Various Grades of Paper Are Looking for Better Year Than Last

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., January 9, 1928.—Business in the new year has started off encouragingly after the holiday period and the season of stock taking. All jobbers are expecting a better year than last although, on the whole, there has not been much to complain of in regard to the turnover during 1927. The mills are all well employed and have orders ahead for several weeks. Some wholesalers complain of slow delivery but promises have been made by the mills that orders for shipment will be speeded up. Balance sheets are now being taken off and annual meetings and conventions will be the order of the day during the month of January. The rag and paper stock business is very good and collections are large while purchases by the mills have been steady. There are very few price changes to report. There is every indication that business in general in Canada will be much ahead of 1927 during the coming year and optimism prevails to a larger extent in all circles than was the case twelve months ago. In this general industrial and commercial revival, the paper trade is bound to enjoy its fair share of prosperity and returns.

Will Expropriate Booth Farm

It is learned that initial steps have been taken by the Department of Public Works, Ottawa, to expropriate the farm of J. R. Booth, Ltd., lumber, pulp and paper manufacturers, Ottawa, as an addition to the Central Experimental Farm. Formal notice of expropriation has been served on the estate of the late J. R. Booth in order to prevent the sale of the property to other interests. It is understood that the Booth estate has fixed a price of $200,000 for the 320 acres constituting the farm, which adjoins the site of the Experimental Farm.

Paper Mill Burned at Belleville

The Hastings Paper Mill, which is located a short distance out from Belleville, Ont., was destroyed by fire recently, the blaze originating, it is thought, from an overheated pulley. Nothing remains but the stone walls of the structure. The loss to building and machinery is estimated at about $100,000 which is partly covered by insurance. It is likely that the plant will be rebuilt. O. A. Porritt is president and general manager of the mill, which is an old established one and turned out about ten tons daily of straw and chip board for corrugating purposes, pulp board sheets and rolls and carpet lining.

Big Operations in Pulp Wood

The closing year was one of the best fall seasons for woods operations in the Thunder Bay district experienced for a long time. The long dry spell in the fall months greatly facilitated the work. The Backus interests are the largest employers of labor, having about two thousand men in their different camps taking out pulp wood. The Great Lakes Paper Company, Fort William, is not as yet operating on company limits, buying all the pulp wood necessary for its pulp plant from the settlers and operators in the district. The Fort William Paper Mills, the Provincial Paper Mills, the Thunder Bay Paper Company are all employing hundreds of men in their pulp wood camps. Along with the help engaged by other firms in the lumber and tie-making line, there are about 7,000 men at work in the bush in the Thunder Bay, Rainy River and Kenora districts. After the different mills under construction are all completed and turning out paper to the amount agreed upon when securing their pulp wood limits from the Ontario Government, another 5,000 men will be employed in the woods in the Thunder Bay area. The average wage is $40 a month and board to monthly men, while experienced piece workers are earning about $75 a month and board. Labor is plentiful and no labor trouble has developed to interrupt this season's operations, which is quite different from the state of affairs prevailing a little over a year ago when many hundreds of pulp wood workers went on strike. A well known Fort William operator said the other day that all tenders for limits should be closed by August and all tie and pulp wood contracts let by September 1, in order to give operators time to finance and get in their supplies by boat, where it is possible, have their camps built and crews cutting so that fairly long and pleasant working days can be taken full advantage of.

Fort Frances Action Set Over

Justice Grant recently delivered judgment in Toronto setting over the action of the Fort Frances Pulp and Paper Company, Fort Frances, Ont., against the Spanish River Pulp and Paper Mills, Ontario Paper Company, J. R. Booth, E. B. Eddy Company, Abitibi Power and Paper Company, Brompton Pulp and Paper Company, Price Bros. & Co., St. Maurice Paper Company, Laurentide Company, Canada Paper Company, Donnacona Paper Company, News Pulp and Paper Company, and Belgo Canadian Pulp and Paper Company. Last May the action was tried without a jury and arose from a war time measure passed under the War Measures Act. The demand for news print in the United States was so great in 1917, that the Canadian manufacturers of news print, with one or two exceptions, were selling practically all their output to the United States publishers. Canadian publishers, especially in the west where freight rates were high, were virtually starved out of the business. At a session of the Federal Parliament, the War Measures Act was passed vesting in the Governor-in-Council the right to adopt any measures which were believed to be for the good of the country. On April 16, 1917, under the act, the Minister of Customs was instructed to arrange for a commissioner to set a price for the sale of news print to Canadian publishers. R. A. Pringle, K.C., of Ottawa, was appointed commissioner and in May, 1917, he set a figure for the period of the second quarter of the year, 1917. By this ruling the various companies had to meet certain quotas at the price list. The recent action arose from the submission of the Fort Frances Pulp and Paper Company that they had been forced to supply more than their share owing to the delinquency of the defendant companies, excepting the E. B. Eddy Company and the News Pulp and Paper Company.

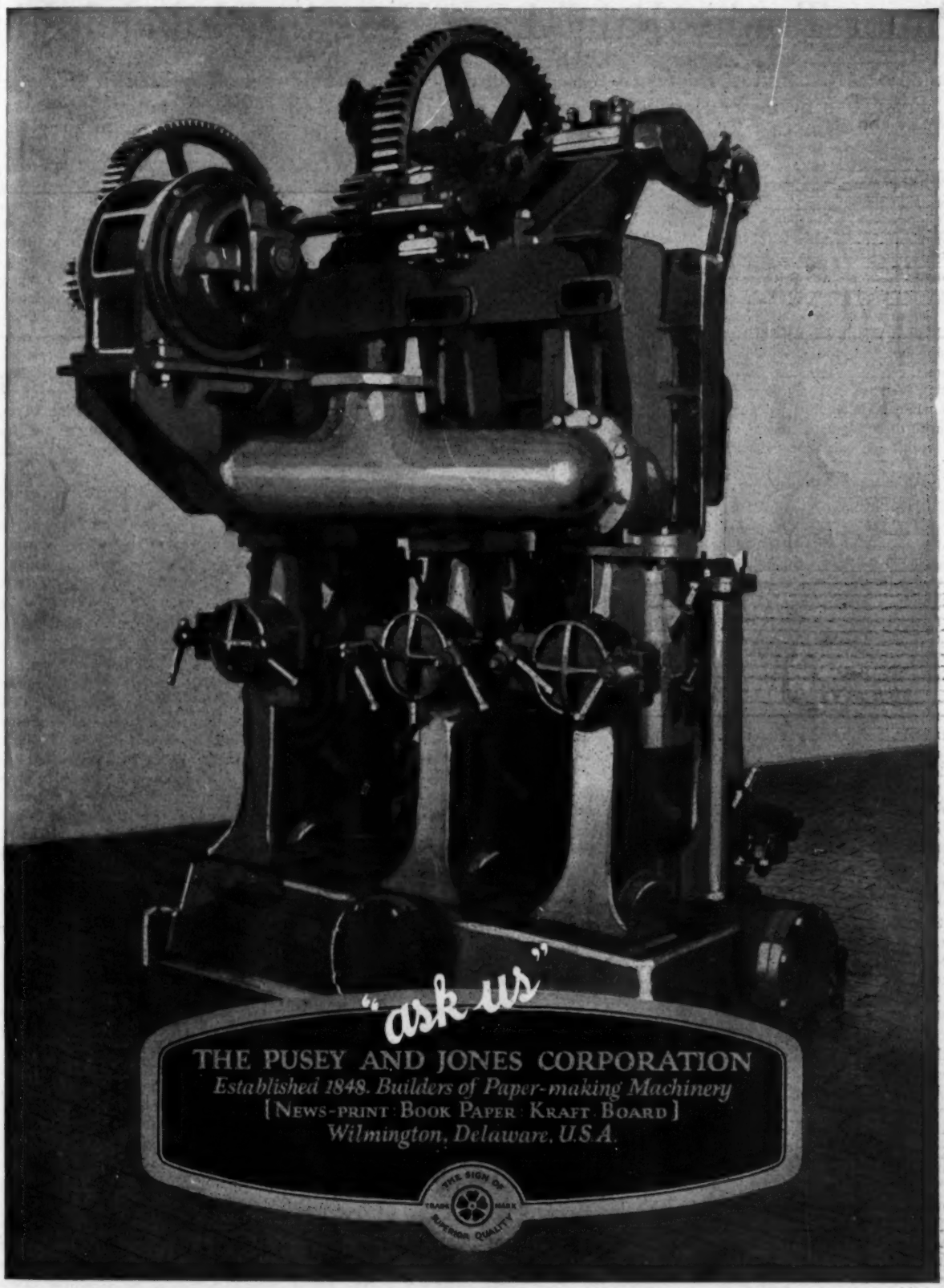
Notes and Jottings of the Industry

W. Harry Quinn, manager of the Public Press, Winnipeg's largest printing concern, was awarded the first prize of $250 in cash for the best sales campaign in the Howard Smith Paper Company's competition which was open to all Canada. The Public Press makes a specialty of direct-by-mail printing.

Dominion Boxboards Ltd., Toronto, has been incorporated to manufacture and deal in paper, paper materials and paper substitutes of all kinds, box board, card board and other preparations, products and manufactures of paper or pulp; to manufacture and deal in wood and lumber, and to manufacture the same into boxes, cartons, cases, barrels.

The Whyte Paper Company, Ltd., dealers in bond and book papers, Toronto, have removed from 185 Bay street to 119 Adelaide street West.

George E. Challes, of Toronto, veteran representative of the Riordan Sales Corporation, Montreal, and Mrs. Challes left at the beginning of the year on an extended trip through the south of Europe. This is the first long holiday that Mr. Challes has taken in many years and numerous friends will wish him a very pleasant jaunt.


"ask us"
THE PUSEY AND JONES CORPORATION
Established 1848. Builders of Paper-making Machinery
[NEWS-PRINT · BOOK PAPER · KRAFT BOARD]
Wilmington, Delaware, U.S.A.
THE SIGN OF TRADE MARK SUPERIOR QUALITY

The Puseyjones Stuff Pump illustrated above is one of eight recently installed in one of America's great paper mills (name on application).

Copyrighted 1927 by The Pusey and Jones Corporation, Wilmington, Delaware, U. S. A.

Paper Trade "Fair" Last Year in Philadelphia

Some Local Distributors Report Increased Business During Past Twelve Months, But Narrower Profits—Fine Paper Demand Quiet at Present, Due to Lull Caused by Inventory Period —Request for Various Grades of Paper Expected to Broaden in Near Future

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., January 9, 1928.—In view of the general impression that the paper trade was subjected to the same trend of dullness which marked the past year in a large number of industries, the slight margin of increased business and profits which some of the local dealers find in the summary of the 1927 accounts is most interesting. While many dealers have not yet completed the inventory of stocks on hand, nor closed the books for the past business cycle, some of the larger dealers have already been able to estimate the 1927 volume of sales and to reckon profits that have incurred in the winding of the year's accounts. From these few paper dealers comes the information that a surprising increase in business was recorded in the entire year but that while both volume and financial statements show this slight advance the margins of profits were narrower owing to the varying scales of quotations that prevailed throughout the entire period.

Fine Papers Less Active

With the inventory season at its height in the allied branches of the fine paper trade there is but little demand for any of the grades at this time. While inquiries are being made for near future business the tendency is to hold off placing purchases until more convincing evidence is given of the trend of business generally. It will be necessary for the printers, manufacturing stationers and other allied trades to place orders soon for replacement of depleted stocks. There is confidence among the dealers that fine paper demand will soon extend to the complete list as business in the new year broadens in many industries that have been laggards for the past few months in the generally dull times effective in many Quaker City enterprises that were obliged to curtail production because of the continued open weather prevailing until late autumn. This is particularly true of the knit goods, clothing, textile and similar industries that long have dominated the local manufacturing trades.

M. H. Thomas Acquires Control of Garrett-Buchanan Co.

Vice President Morgan H. Thomas, of the Garrett-Buchanan Company, has acquired the controlling interest in the firm, one of the largest paper distributing concerns in this section of the country and long identified with the Quaker City industry. Through the purchase of the entire interests of the late Col. John H. Sinex, whose death occurred in early November, in his 78th year, Mr. Thomas becomes the leading official of the company. The passing of the Sinex interests became effective January 1 and the changes will be announced at the coming annual meeting of the company to be held on Wednesday, January 11, when election of officers will be held and a new president elected to succeed the late head of the concern. The business dates back to 1858 and is the largest of its kind in the Philadelphia trade, featuring every branch of the industry inclusive of fine and coarse papers and specialties, wholesale stationery supplies and twine and cords on an extensive scale.

Mr. Thomas became associated with the Garrett-Buchanan Company in 1900 when he joined the staff as entry clerk in the accounting department. He rose rapidly from sales representative through various executive positions to the management of the company and office of Vice President in 1912. He held an option to purchase 1,000 shares of the company which he exercised in gaining control of the business upon the death of Mr. Sinex and since has arranged to take over the balance of 1,946 from the Sinex estate. The company held an insurance on the life of Colonel Sinex for $50,000, in addition to a building and loan payment which brought the total amount to $80,000. This cash money was reinvested in the business in the last quarter of 1927. While cash settlement was made on the 1,000 share option, arrangement has been made with the Sinex estate for the transfer of the remainder of share under mutual agreement of terms for the passing of control to the new head of the company.

Under recent expansion plans the Garrett-Buchanan Company became affiliated with a large cordage and twine concern, having acquired control of the business of the late Park Weikert, who conducted the company under his own name. The present mammoth paper warehouse of the Garrett-Buchanan Company is just across the way from the large warehouse of the Park Weikert Company which is still kept intact though under control of the paper concern. Despite the general industrial depression of the p st year the Garrett-Buchanan Company was one of the few concerns that showed an increase over the preceding year with a fair margin in gain.

With the new year the company sent out a special announcement of the plans of its twine and cordage branch of the business stating that it had extended this section by the acquisition of the agency for the Columbian ropes and twines stocked in the warehouse at 24-26 South Marshall street and manufactured in Auburn, New York. The Park Weikert Company, under the Garrett-Buchanan Company control, is the exclusive selling agents for the Columbian twines and cords in the Philadelphia territory.

National Box Manufacturers Association in Convention

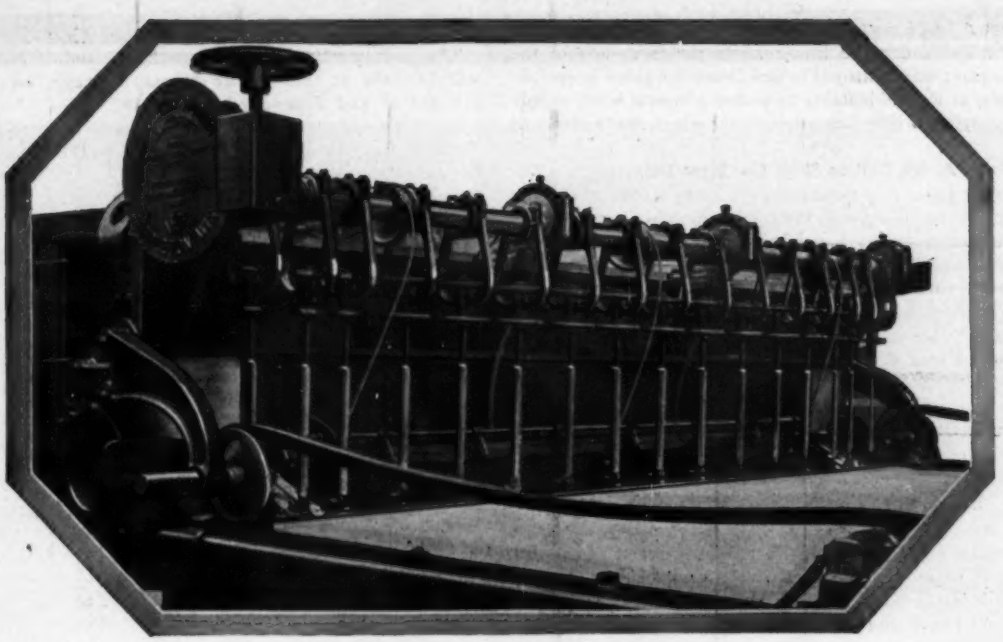
An invitation has been sent to the paper box manufacturers, and those serving the industry, by the National Paper Box Manufacturers Association, with headquarters in this city, requesting their attendance at the convention of the Western Paper Box Manufacturers Division, to be held in the Coronado Hotel, St. Louis, January 25 to 27. An informal reception is to be held for visitors on the evening of January 24. On the 25th, the morning will be given over to group conferences with subjects of interest to the trade discussed informally, while the afternoon is to be devoted to selling problems. In the evening "St. Louis Night" will be celebrated by a dinner and dance. Thursday, the 26th, will be given over to consideration of ways and means to develop stabilization of the box business, with experts opening these discussions. Thursday evening the annual banquet is scheduled. Another business session is to feature the program for January 27, closing with election of officers. In the afternoon a visit to the International Shoe Plant or the Chevrolet factory is to take place.

Matthias & Freeman to Exhibit at Box Convention

The Philadelphia paper box specialists on an extensive scale, the Matthias and Freeman Paper Company, 127 North 7th street, will have a booth at the annual convention of the Western Division of the National Paper Box Manufacturers Association. The exhibit will include a complete line of the Sunrise Papers in their newest brilliant colorings and designs, the brand which the local paper house distributes all over the nation. Charles Matthias, of the firm, who just has returned from the South, is to be in direct charge of the exhibit, while the Western sales representative, William Daniels, will assist in entertaining the box men who attend the display in the Coronado Hotel.

Fire Destroys Norristown Mill

Fire which swept the plant of the E. F. Woodhead Company, paper manufacturers, of Norristown, Pa., destroyed the building and its contents. The Woodhead Company manufactured towels and crepe papers in the recently built factory extending 200 feet



Another Year—Are You Ready?

As you start production for another year, are you ready with profit-making equipment to produce better paper at a lower cost? The 225 installations of the Voith Inlet show that many mills are ready to lower production costs.

The wide acceptance of the Voith Inlet is due entirely to its performance. And, 105 repeat orders prove that it repeats because it performs.

Easy to install—easy to operate—you should be planning now to be ready for another year. With the Voith Inlet you will get 10% more production than with the old slice method, depending upon your drying capacity and the mill's auxiliary equipment. Paper will be uniform in caliper. Wires will last 10% to 15% longer, and you will have fewer breaks to shut-down machines. And, to further increase its efficiency, the operator can deckle-in while the machine is running, if deckling-in equipment is desired.

The Voith Inlet is without doubt equipment you should investigate now to be ready for a profitable production year in 1928. Let us tell you more about it—attractive booklet sent upon request.

VALLEY IRON WORKS CO.

Machinery for Paper and Pulp Mills

APPLETON WISCONSIN

New York Office: 350 Madison Avenue

Western Manufacturing & Sales Division:
Smith & Valley Iron Works Co., Portland, Oregon

and 40 feet wide and constructed along a railroad siding of the Pennsylvania Railroad. The heavy winds that prevailed at the time that the plant was destroyed in late December aided in spreading the flames, as well as inability to secure adequate water supply from the Schuylkill, 1,000 feet away, from which the water was pumped.

A. M. Collins Mfg. Co. New Lines

New Lines of paper box manufacturers fancy stocks in sampler form will be sent to the trade in the coming month. Headquarters here at 1518 Walnut street is now preparing for the sample line of photo mounts and cover papers, which will be featured for the early 1928 needs of the trade. There will be six new and seasonable numbers included in the line of Fabritone Translucent folding card stock which is now being circulated among the dealers.

Goldman Paper & Stock Co. Buys Large Paper Lot

Having acquired more than six car loads of news print from the Harrisville Paper Company of New York, the Goldman Paper and Stock Company is now converting it in its plant at 414 S. Front street. The news stock is of the catalogue grades and is being sheeted for trade conversion.

Lang Paper Co. To Move Equipment

With the late January days the Lang Paper Company, manufacturers of roofing and floor felts, with present plant at 24th street and Vine, will begin to move part of the equipment to its new factory now being remodeled into a paper making plant, on the site of the old Pusey and Jones Ship Yard in Gloucester, N. J. While the Lang company will continue to run its present plant as the mechanical units are being conveyed to its new location, it is expected that only part of the paper making machines will be in operation here until the new plant is fitted with machinery which will enable operation without interruption.

Penn Card & Paper Co. Equips Converting Plant

With the addition of a new Langston Rotary Cutter and a Cameron Rewinder, the cutting department of the Penn Card and Paper Company has been augmented for the purpose of giving a complete service to its customers in the printing and allied trades. The head of the Penn company, located at 20 N. 6th street, Myer Magil, leaves in mid January for a tour of the Western paper mills with a view to purchasing special lots of paper in car load shipments for the Philadelphia converting plant.

Paper House of Pennsylvania Falsely Reported on Fire

The many friends and patrons of the Paper House of Pennsylvania, 28 North 6th street, were quick in extending sympathy upon the reported destruction of part of its warehouses by a fire which was confined to another firm's quarters in the building which it occupies. While the daily press carried reports stating that the Paper House was burned—the head of the firm, Norbert A. Considine, has been kept busy since the fire last Wednesday in denying the alleged damages to his business. The facts in the case are that the Brownell Lithograph Company, occupying the 5th floor of the building, was slightly damaged by a fire which was extinguished within a few minutes by the fire fighters and returned to operation two hours later. The fire was inconsequential and did not in any way damage the plant or the property leased by the Paper House, which occupies the remaining four stories.

Philip J. Riley Resigns

GLENS FALLS, N. Y., January 9, 1928.—Philip J. Riley, who for many years has been identified with the Tait Paper & Color Industries as a vice president and general manager of the Imperial Wall Paper Co., a unit of the Tait Corp., has resigned, the resignation becoming effective recently. Mr. Riley has accepted a connection with the United Wall Paper Factories, Inc., and according to announcement by Winfield A. Huppuch, president of this corporation, he will be associated with Mr. Huppuch in the management of the Stand Wall Paper Co. at Hudson Falls, which is a part of the United Wall Paper Factories, Inc. Mr. Riley has been elected a vice president of the United Wall Paper Factories, it was stated by Mr. Huppuch.

Paperboard Industries Association To Meet

The next meeting of the Paperboard Industries Association will be held at the Palmer House, Chicago, on Wednesday, January 18 and Thursday, January 19.

On Wednesday, January 18, there will be a meeting of the Folding Box Group in the morning and of the Paperboard Group in the afternoon.

The Container Group meeting will be held on Thursday morning, January 19; the General Meeting of the three Groups in Joint Session convening at 1:45 P. M. Thursday afternoon.

The schedule of meeting is as follows:

Meetings in Room No. 10, 3rd Floor, The Palmer House.

Wednesday, January 18, 1928:

10:30 A M.—12:30 Noon—Meeting of the Folding Box Group (Vice-President H. S. Hinkle presiding)

2:00 P. M.—4:00 P. M.—Meeting of the Paperboard Group (Vice-President E. R. Hankins presiding)

Thursday, January 19, 1928:

10:30 A. M.—12:30 Noon—Meeting of Container Group (Vice-President John J. Brossard presiding)

12:45 Noon—Luncheon—All Members

1:45 P. M.—4:00 P. M.—Meeting of the 3 Groups in Joint Session (President W. J. Alford, Jr. presiding)

Notices will be issued calling meetings of the Standing Committees and of the Executive Committee, at the Palmer House, Chicago, as follows:

Meetings of Standing Committees ....11:00 A M. Tuesday, January 17.

Meeting of Executive Committee, 1:30 P. M. Tuesday, January 17.

At this meeting, President Alford will announce the personnel of the Standing Committees which will function during the ensuing year.

Interesting programs are being prepared for the January meetings, and all indications are that the sessions will be well attended.

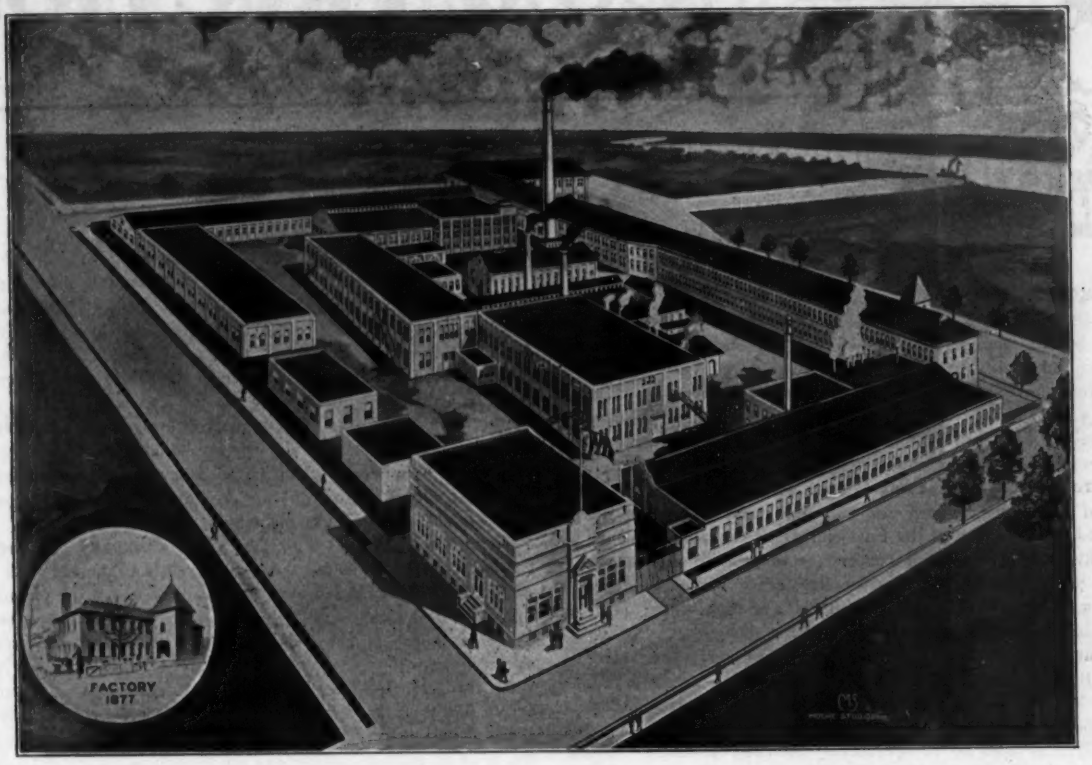
Will Develop English River

Development of water power on the English River was the subject of a conference with federal, Manitoba and Ontario power experts held recently in Toronto at the office of the Hon. William Finlayson, Minister of Lands and Forests for the province of Ontario. Manitoba and Ontario last summer sent out engineers to make a survey of the English River region and its water power. The report was submitted to their Governments in December and it was these documents to which the recent conference gave some study. Plans for a huge conservation dam of the English River near Lac Seul were discussed. It is stated that Ontario should build and control the dam and contributions would be made to it by Manitoba and the Federal Governments. E. W. Backus, of the Fort Frances Pulp and Paper Company, Fort Frances, who has large areas of timber limits so far undeveloped, is much interested in the matter of power production for his mills and so is the International Paper Company.

To Represent Waterbury & Son on Coast

ALBANY, N. Y., January 3, 1928.—Frank P. Wilder, widely known in the Northern New York paper industry through his connection as executive with some of the leading mills, has been appointed the Pacific Coast representative of the H. Waterbury & Son Company, of Oriskany, producers of papermaker's felts. He will have complete charge of all sales of Waterbury products in the states of Washington, Oregon and California. He has left for the Coast and after looking over the territory will establish an office in a location convenient to the paper mills of the Pacific Coast.

Mr. Wilder has been a resident of Carthage and his family now reside there. After he has established his office on the Coast his family will join him probably the latter part of January.



This Illustration Visualizes Fifty Years of Progressive Growth and Unsurpassed Achievements in the Production of

EASTWOOD

FOURDRINIER-CYLINDER-WASHER

WIRES

EASTWOOD WIRE MANUFACTURING CO., BELLEVILLE N.J. U.S.A.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Trenton, N. J.—The Trenton Folding Box Company, foot of Peace street, has concluded negotiations for the purchase of one of the buildings formerly used by the Thomas Maddock's Sons Company on Ewing street, as a pottery, and will remodel and improve for a new plant for the manufacture of paper and cardboard boxes, etc. The work will cost about $30,000. It is understood that the present plant will be removed to the new location and considerable additional equipment provided for increased output.

Monroe, Mich.—The Consolidated Paper Company has authorized an immediate call for bids for the construction of its proposed new addition at the East end of First street, South Side, to be five-story, reinforced concrete, estimated to cost approximately $450,000, with machinery. Forster & Wernert, Nicholas Building, Toledo, Ohio, are architects and engineers. H. Lee Rauch is general manager.

Newark, N. J.—The C. R. Whiting Company, Inc., care of Frank B. Friedlander, 2 Johnson street, Newark, recently organized by Mr. Friedlander and associates, with capital of $125,000, is said to be planning the operation of a local factory for paper goods production, as well as to operate a wholesale business. Victor Friedlander and Charles H. J. Clause are also interested in the company.

Fresno, Cal.—The Zellerbach Paper Company, San Francisco, has authorized plans for the construction of a new building at Kern and H. streets, Fresno, to be used for storage and distributing service. It will be 50x150 feet, reported to cost in excess of $45,000, with equipment. The structure will replace a building which was recently destroyed by fire with loss approximating the amount noted.

Salt Lake City, Utah—The Rocky Mountain Bank Note Company, 580 South Temple street, has superstructure in progress for a one-story and basement addition for which plans recently were filed, estimated to cost about $18,000. Early occupancy is planned.

Rochester, N. Y.—R. M. Myers & Company, Inc., care of Clarence E. Shuster, 714 Ellwanger & Barry Building, recently formed by Mr. Shuster and associates, with capital of $200,000, is said to be planning the early operation of a local plant for the manufacture of a line of paper goods. Robert E. Myers, 155 Canterbury road, will be one of the heads of the new organization.

Chicago, Ill.—The Rockwell-Barnes Paper Company, 815 South Wabash avenue, is awarding miscellaneous contracts for the completion of a one-story addition, including painting, carpentry, glass, roofing, etc., and will rush the extension to permit early occupancy. The Chicago Industrial Construction Company, 53 West Jackson boulevard, has the general contract. A. Epstein, 2001 Pershing road, is architect and engineer.

Manitowoc, Wis.—The Schmidtman Company, Seventh and Jay streets, paper products, has awarded additional sub-contracts for the completion of its new three-story and basement storage and distributing plant now in progress, and proposes to complete the structure at an early date. It will be 35x80 feet, estimated to cost about $25,000. William J. Raeuber, Manitowoc, is architect.

Atlanta, Ga.—The Atlanta Paper Company, 225 Moore Street, S. E., has completed plans for the construction of a one-story boiler plant, 35x45 feet, reported to cost about $18,000, and will begin work at an early date. Joe N. Eley, Atlanta Trust Building, is architect.

Aberdeen, Wash.—The Pacific States Pulp and Paper Company has concluded negotiations for the purchase of a tract of land at Junction City, near Aberdeen, fronting on the Chehalis River and proposes to use as a site for the construction of its proposed new mill. Preliminary plans are in progress. The plant will have an initial output of 100 tons per day, and is reported to cost more than $1,000,000, with equipment.

New York, N. Y.—The Chic Box Company, Inc., care of Samuel Wach, 1715 Nelson avenue, recently organized with capital of $10,000, by Mr. Wach and associates, is said to be planning the operation of a local plant for the production of special paper boxes and containers. Harry Deber, 38 Park Row, is also interested in the company.

Milford, N. J.—The Warren Manufacturing Company has active work under way on the expansion and improvement program at its works, recently announced, and will occupy the different units as soon as completed; the project provides for a number of two-story buildings for machine division, finishing department, office service and other work. The entire project will represent an investment of close to $500,000, with equipment.

Aberdeen, Wash.—The West Lumber and Pulp Company, Aberdeen, recently organized, is reported to be planning a call for bids on general contract before the close of the month, for the construction of its proposed local pulp and paper mill, to consist of several units, estimated to cost more than $2,000,000, with machinery. B. T. McBain, Portland, Ore., mill engineer, is in charge of the project and is also identified with the company as general manager.

Avon River, N. S.—The A. P. W. Paper Company, Albany. N. Y., has called attention to the fact that it does not contemplate the construction of a paper mill in this locality, recently reported in these columns.

Belleville, Ont.—The Hastings Paper Mill, Ltd., is said to be planning the early rebuilding of the portion of its plant, destroyed by fire January 2, with loss reported at close to $100,000, including machinery. The reconstruction will approximate a like sum.

Toronto, Ont.—The Canadian Paper Board Company, 32 Front street, West, will proceed with the construction of its new local plant, to consist of a group of buildings, primarily for corrugated and other paper board products. The expansion is reported to cost about $1,000,000. Kerry & Chase, Confederation Life Building, Toronto, are engineers.

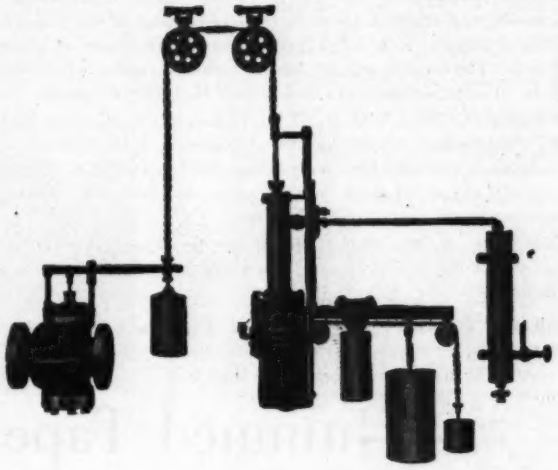
New Companies, Etc.

New York, N. Y.—H. Lemberger & Company, Inc., has been incorporated with capital of $50,000, to manufacture paper boxes, containers, etc. The incorporators are William H. Silverblatt and Harry A. Lemberger, 339 West 13th street, New York. The last noted will head the company.

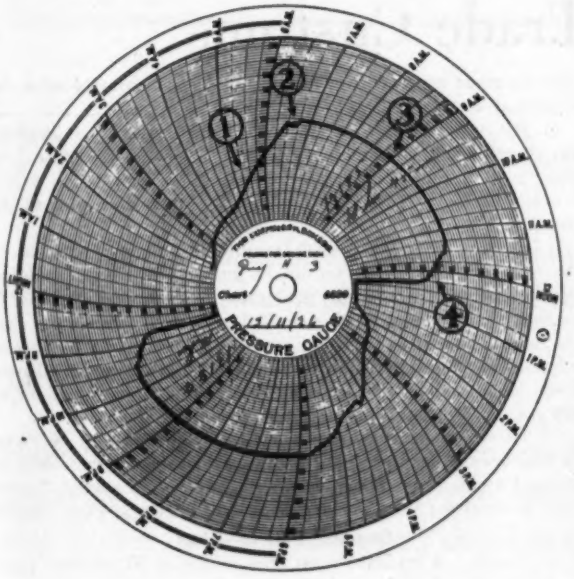
Rockford, Ill.—The Globe Envelope Company, 500 North

To the Sulphite Superintendent—

Here's the Mason No. 131 Regulator for digesters—



and here's a typical chart from a mill—



1. Pressure built up slowly by hand regulation.
2. Mason Regulator takes hold.
3. Pressure controlled by Mason Regulator. Notice the steady, accurate maintenance of exact pressure.
4. Blow down.

* * *

Mason Regulators on digesters and paper machines save steam and help to produce a more uniform product. High initial pressures and super-heat do not affect their accuracy. Write for a copy of Catalog No. 62.

Mason Regulators

MASON REGULATOR CO.
Boston, Mass.

San Francisco Office, 606 Howard Street

Mason Regulator Co. of Canada Ltd., 314 Notre Dame St. West, Montreal

1609

Madison street, has been incorporated with capital of $25,000, to manufacture paper goods. The company is headed by Edward J. Hansen. It is understood that a local plant will be operated at an early date.

Chicago, Ill.—The Barton-Hobart Paper Company, 111 West Washington street, has filed notice of change of company name to the Hobart Paper Company.

Boston, Mass.—The Boarum & Pease Company of Boston, Inc., has been formed as an affiliated organization of the Boarum & Pease Company, New York, manufacturer and dealer in paper products. The new company has a nominal capital of $1,000. John W. Adams is president; and Robert H. Libby, treasurer.

Wilmington, Del.—The Mead Paper board Corporation, care of the Corporation Trust Company of America, duPont Building, Wilmington, Del., has been incorporated with capital of $5,000,000 and 100,000 shares of stock, no par value, to operate a mill for the production of paperboard products.

New York, N. Y.—The Model Paper Box Company has arranged for an increase in capital from $5,000 to $20,000, for general expansion.

Chicago, Ill.—The Paper Utilities Corporation has filed notice of increase in capital from $210,000 to $385,000, a portion of the fund to be used for general expansion.

Wilmington, Del.—The Sylva Paper Board Company, care of the Corporation Trust Company of America, duPont Building, Wilmington, has been chartered under State laws, with capital of $1,360,000, and 20,000 shares of stock, no par value, to operate a pulp and paper mill.

Milwaukee, Wis.—The Dever Brothers Paper Company has arranged for a change of name to the Flint Paper Company, in connection with general expansion plans.

New Companies, Etc.

Cleveland, Ohio.—The Broadway Paper Stock Company has been incorporated with a nominal capital of $2,500, to deal in paper products of various kinds. The incorporators are S. M. Rabinovitz and C. A. Svetlik, both of Cleveland.

New York, N. Y.—Levy & Rappaport, Inc., 61 Wooster street, manufacturer of paper boxes and containers, has filed notice of change of name to the Rappaport Paper Box Corporation.

Chicago, Ill.—The American Blue Print Paper Company, 445 Plymouth Court, has arranged for a change of company name to the Charles Bruning Company, Inc.

Wilmington, Del.—The Yucca Fibre Products Company, Inc., care of the Corporation Trust Company of America, du Pont Building, Wilmington, has been incorporated under state laws with a capital of $200,000, and 3500 shares of stock, no par value, to manufacture fibre goods.

Gummed Tape Trade Customs

The following trade customs were adopted at a meeting at Buffalo, N. Y., December 8, by the National Association of Gummed Tape Manufacturers, 16 East 41st Street, New York:—

General Regulations Covering Manufacture and Sale

1. QUOTATIONS: All prices are F. O. B. Mill and made subject to change without notice. All prices, orders, contracts and agreements are contingent on strikes, fires, accidents or other acts or causes beyond control of the manufacturer.

2. TERMS: Accounts are due net in thirty days from date of invoice.—2 per cent cash discount is allowed if paid within ten days from date of invoice.

3. CLAIMS: For the mutual protection of both buyer and seller, claims must be made within ten (10) days after receipt of goods. No paper or cloth on which claim has been made should be used or returned until seller has had opportunity to inspect same or until adjustment has been made. No claims will be entertained for allowance after paper has been cut, printed or processed.

4. COMMERCIAL DELIVERY: On all deliveries the usual normal variations in quantity and quality shall be accepted.

5. DEFERRED SHIPMENTS: All contract orders for future shipments must specify ultimate date of shipment, on which date goods are to be billed and the invoice taken to account by customer whether goods are ordered shipped or not. Where goods are invoiced or held for customer's account, terms are from date of invoice.

6. CANCELLATION OR CHANGE: After an order is received and acknowledged, no changes can be permitted, or cancellation allowed without manufacturer's written consent.

7. MARKINGS: No package shall be marked, stencilled or labelled by the manufacturer with other than the actual size, weight, count or contents.

Gummed Paper Tapes

8. STANDARD ROLLS: Shall be:

Gummed Side In

35 Lb.—800′ and 500′ Gummed Side Out

60 Lb.—800′ and 1000′ Gummed Side In

Standard widths shall be in cuts of even inches or fractions evenly divisible by ¼ inch, but in no case shall the standard width be less than ¾ inch.

9. EXTRA CHARGES: For widths narrower than ¾ inch and for coils of odd length or smaller than standard an extra charge shall be made dependent on quantity and commensurate with the additional cost.

10. BASIS: The basis weight of gummed paper tape shall be the ream weight of the raw paper on a 24 x 36—480 basis. All paper used in the manufacture of kraft tapes shall be of a No. 1 kraft, having a Mullen Test of not less than one point to the pound.

11. NORMAL VARIATIONS AND MARKINGS: When purchasing by the roll, weight per roll can not be guaranteed. When purchasing by the pound, yardage per pound is not guaranteed. No package shall be marked or stencilled or labelled with other than the actual dimensions, weights, count or contents. If package is not marked showing the basis weight of the raw paper, the invoice billing the merchandise must contain the basis weight of the raw paper.

12. PACKINGS: Rolls shall be put in bundles as near 30 inches in length as practicable. Wrappers, cartons, plugs, etc., shall be charged at the price of contents, such tare not to exceed 2½ per cent of total weight. Packing in wooden cases at extra charge.

Gummed Papers—Flats

13. COUNT: A standard ream shall consist of 500 sheets. Paper to be priced and sold on a ream basis.

14. SIZE: The standard size of reams shall be 17 x 22 inches and 20 x 25 inches or sheets of large size from which the above standards can cut without waste.

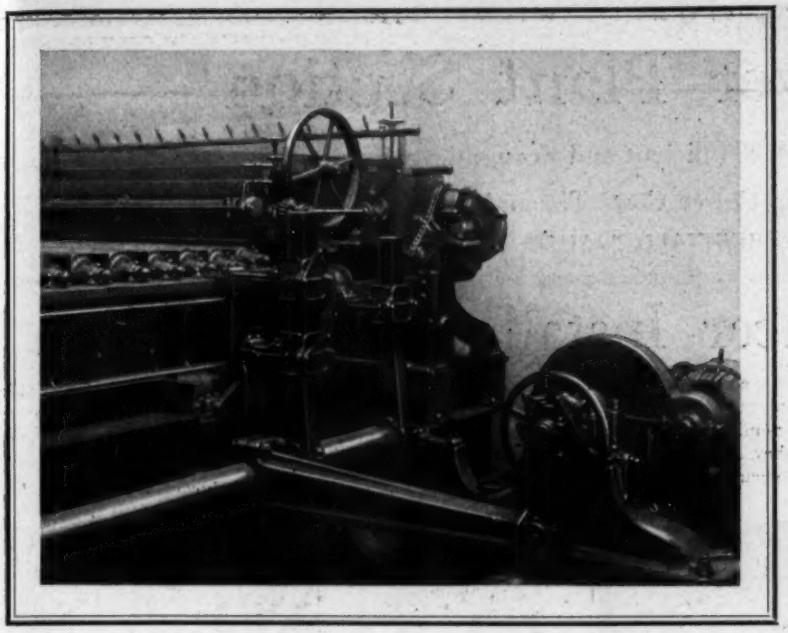
15. DELIVERY: Gummed Papers within 7 per cent of the normal standard weight of the ream shall constitute satisfactory delivery.

17. EXTRA CHARGES: For broken cases and for other than standard size sheets or sizes from which the standards are cut an additional charge shall be made commensurate with extra cost unless the order calls for one ton or more of paper.

Gummed Cloths

18. STANDARD ROLLS: Shall be not less than 150 yards wound gummed side in and in cuts of even inches or fractions evenly divisible by ⅛ inch but in no case shall the standard width be less than ¾ inch.

19. EXTRA CHARGES: For widths narrower than ¾ inch and for rolls of odd length or smaller than standard an extra charge shall be made commensurate with additional cost. For quantities of one color and width less than the equivalent of 10,000 yards one inch basis the customary additional charge is 20 per cent.



400 Shakes per Minute on Aldrich High-Speed Shake

The illustration shows the Aldrich High-Speed Shake pedestal connected to the shaking shaft, which transmits the shake to the table, and the flexible shake mounting which permits shaking the table only instead of the side frames.

The Aldrich High-Speed Shake eliminates shaking of the whole fourdrinier end, side frames and all, which operation produced a very sluggish shake. With the improved Beloit shake mounting, the table rails and the table rolls are the only parts that shake. The weight of the shaking parts is thus reduced to less than half. This permits a very effective shake to be transmitted to the wire and enables running at a much higher speed than was heretofore possible.

The Aldrich Shake can shake the wire 400 shakes per minute against 175-200 shakes per minute possible on old type machines.

The speed of the shake is controlled by a variable speed motor directly connected to the shake pedestal. A hand-wheel changes the length of stroke, which can be varied at will while the machine is running.

The operator, standing at the shake pedestal and observing the effect of the shake on the wire, is able instantly, at will, to speed it up or slow it down, or increase the throw or decrease it according to the effect desired on the sheet as it is forming on the wire.

The shake mounting is so arranged that the pitch of the wire can be varied while the machine is running; in other words, you can raise or lower the breast roll a few inches above the level or below level if desired, without stopping the machine.

The Beloit, therefore, makes it possible to shake twice as fast as formerly. The same machine can be run at double its former paper speed and still get the same number of shakes per foot of wire travel; or at the same speed you can give the sheet of paper twice as many shakes per foot of wire travel as formerly.

The mechanism of the Beloit Shake is so designed that there are no wearing parts. The shake shaft itself and the shake mounting is accomplished by flexible supports which bend instead of rubbing. There is no friction and no wearing parts.

Though the shake is not the only factor which contributes to the formation of the sheet, it is, nevertheless, a most vital one. In order to illustrate how effectively the Aldrich High-Speed Shake works out, we quote here extracts from letters received from two leading mills:

"Dear Sirs:

"You may be a little surprised to learn that our tearing tester fell into disuse quite a long time ago because the tear was running so uniform in both directions that we did not see much to be gained by keeping up our records.

"No. 1 machine at ..... was making 236 bag. We were having trouble with the tear testing 36 to 38. We changed from a short fast stroke to a slow long shake and this brought the tear to 51 to 53. We surely are well pleased with the machine, the fourdrinier part in particular."

The complete Beloit Unit, therefore, makes a very efficient combination, for this shake mounting and mechanism lends itself to use with the removable feature of the Beloit fourdrinier. This combination of the Removable, Adjustable (while running) and Variable High-Speed Shake, is an ideal co-ordination of factors contributing to the formation of a sheet of paper at a higher speed or a better sheet at the same speed.

The Aldrich High-Speed Shake

Sixty-one paper mills have adopted the Aldrich High-Speed Shake within the past six years. Many of these mills have re-ordered.

In the pioneering of progressive engineering in the papermaking industry, Beloit engineers have proved conclusively that machine power can effectively supersede man power in practically every detail of mill operation.

In changing wires, in high-speed production at low power and operating cost; in automatic time-saving features, the Beloit operates more efficiently with less labor.

Thus, in the Beloit, scores of mills have found the solution to many problems.

Beloit Iron Works — **Beloit, Wis., U.S.A.**

Since 1858 Builders of Paper, Board Mill and Container Plant Machinery

Power Plant Section

To Promote the Most Efficient and Economical Distribution of Power

Reducing Power Costs Through Unit Treatment

Conducted by REGINALD TRAUTSCHOLD, Consulting Engineer

Speed Reducer Installations Illustrated

Speed reducers were discussed in the Paper Trade Journal for September 15, 1927, from the viewpoint that their employment was essential in the efficient and economical utilization of electric power. They do even more, for they save power, conserve floor space, cut installation and maintenance expenses and provide effective insurance against accidents. So indispensable are they, in fact, that the leading pulp and paper mills are standardizing more and more upon such units in order to secure that satisfactory power transmission which provides continuance in mill operation, maximum output and low production costs. It is only necessary to pass through an up-to-date paper mill with an observant eye to appreciate the fact that the abolition of belt and rope drives, open gearing, etc., in favor of compact, efficient speed reducers of one variety or another, has been quite largely responsible for the great strides made in the pulp and paper industry during recent years.

Before taking such a fanciful trip, however, it will be advisable to make a brief reference to the more recent developments in mill type speed reducers, for the necessarily general classification and grouping of speed reducer types in the issue of September 15th may not have been quite as clear in one respect as it might have been. Speed reducers were arbitrarily placed in three general divisions, those of the worm gear type, mill type reducers and speed reducers with shafts in line. This may have misled those not familiar with all varieties of approved speed reducers, for the divisions overlap to some extent. For instance, a mill

Courtesy Palmer-Bee Co.

FIG. 1

Mill Type Speed Reducer with High and Low Speed Shafts in Line Driving Agitators at the Kalamazoo Vegetable Parchment Co. Speed Ratio: 77 to 1.

Courtesy D. O. James Mfg. Co.

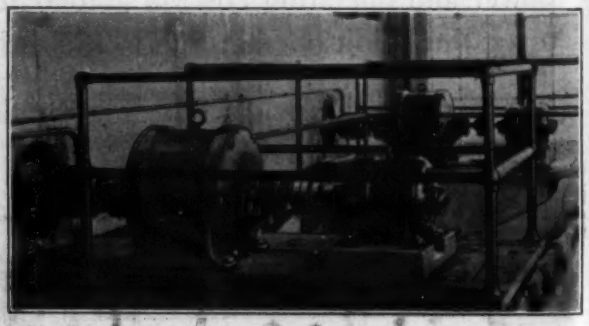
FIG. 3

Planetary Spur Gear Speed Reducer Driving Paper and Rag Sorting Conveyor, Bryant Paper Co.

Courtesy D. O. James Mfg. Co.

FIG. 2

Worm Gear Speed Reducer Driving Packer Screens, Bryant Paper Co.



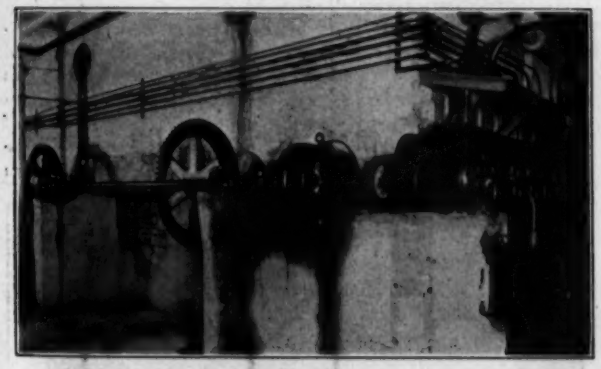
Courtesy D. O. James Mfg. Co.

FIG. 4

Stock Chest Drives Incorporating Planetary Spur Gear Speed Reducers, Bryant Paper Co.

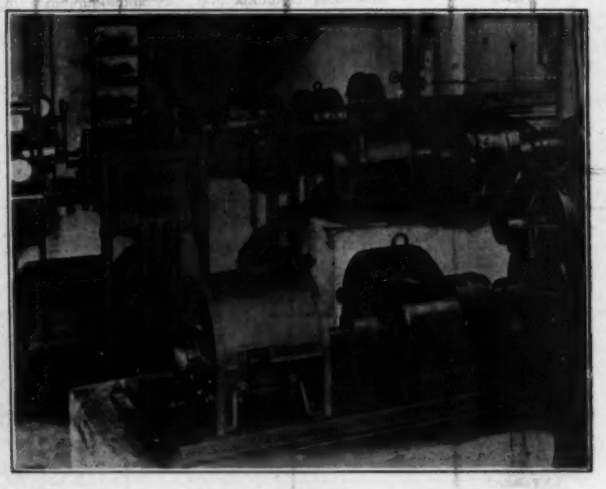
Courtesy D. O. James Mfg. Co. FIG. 5
Continuous Filters Driven Through Planetary Spur Gear Speed Reducers, Bryant Paper Co.

Courtesy D. O. James Mfg. Co. FIG. 6
Planetary Spur Gear Speed Reducer in Stuff Chest Drive, Bryant Paper Co. Speed Ratio: 192 to 1.



Courtesy D. O. James Mfg. Co. FIG. 7
Agitators Driven Through Planetary Spur Gear Speed Reducer, Bryant Paper Co. 20 Horsepower, Speed Ratio: 38 to 1.

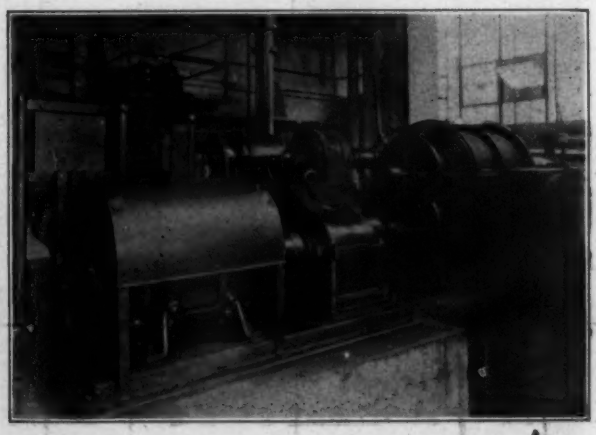
Courtesy D. O. James Mfg. Co. FIG. 8B
Conversion Save All Drives Incorporating Planetary Spur Gear Speed Reducers (25.6 to 1 Ratio) on Center Units and Mill Type Herringbone Speed Reducers (3.30 to 1 Ratio) on Outside Drives, Bryant Paper Co.



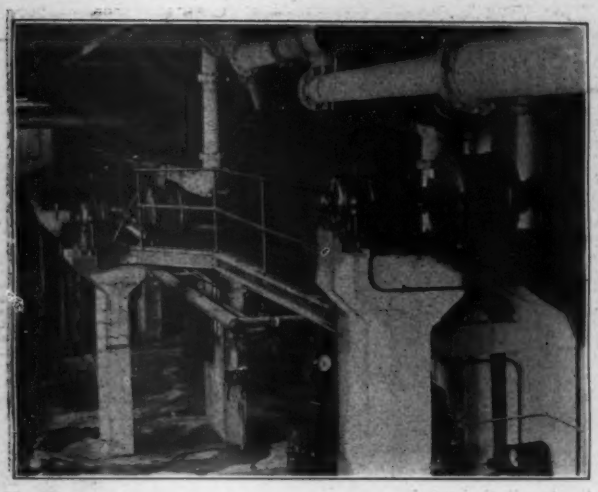
Courtesy D. O. James Mfg. Co.
FIG. 8A
Conversion Save All Drives Incorporating Planetary Spur Gear Speed Reducers (25.6 to 1 Ratio) on Center Units and Mill Type Herringbone Speed Reducers (3.30 to 1 Ratio) on Outside Drives, Bryant Paper Co.

type speed reducer with straight cut spur gears which has met with much favor in paper mill service has its high and low speed

Courtesy D. O. James Mfg. Co.
FIG. 8C
Conversion Save All Drives Incorporating Planetary Spur Gear Speed Reducers (25.6 to 1 Ratio) on Center Units and Mill Type Herringbone Speed Reducers (3.30 to 1 Ratio) on Outside Drives, Bryant Paper Co.



Courtesy D. O. James Mfg. Co.
FIG. 8D
Conversion Save All Drives Incorporating Planetary Spur Gear Speed Reducers (25.6 to 1 Ratio) on Center Units and Mill Type Herringbone Speed Reducers (3.30 to 1 Ratio) on Outside Drives, Bryant Paper Co.



Courtesy D. O. James Mfg. Co.

FIG. 9

Four Agitating Cooker Drives Employing Planetary Spur Gear Speed Reducers, Bryant Paper Co.

shafts in line. In other words, the high speed and the main drive shafts are axially concentric, the power being delivered to the driven unit on a line with its point of inception. Speed ratios up to 4,000 to 1 are secured with such units and at very high efficiency.

Bryant Paper Company's Practice

To enlarge upon the merits of speed reducers in paper mill service, individually or in general, is not half as impressive nor as apt to be of value to the interested mill, however, as a pictorial presentation of speed reducer applications in an individual paper mill of recognized prominence, efficiently and economically operated. For example, a trip through the Kalamazoo plant of the Bryant Paper Company, one of the largest producing book papers, will serve to draw attention to the study required in selecting a suitable speed reducer for each of the many services in which such units have demonstrated their ability to effect substantial economies.

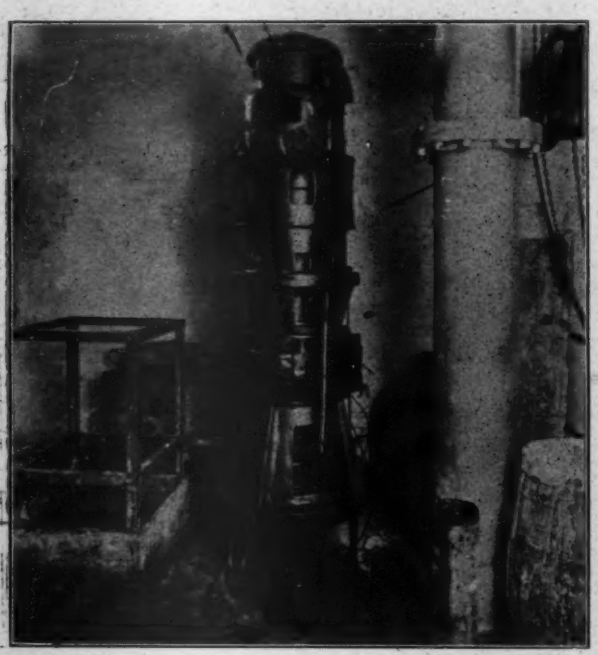
Courtesy Foote Bros. Gear & Machine Co.

FIG. 10

Half a Dozen of the Vertical Spur Gear Speed Reducers Driving Agitators, Robert Gair Co.

Worm gear, planetary spur gear and combinations of planetary spur and mill type herringbone speed reducers are all employed, each unit selected on the strength of its proven capacity to render the particular service for which it is used. Excellent results have certainly been secured with this selection and the engineers of the mill feel that the units as installed aptly fill all the drive demands they are called upon to meet.

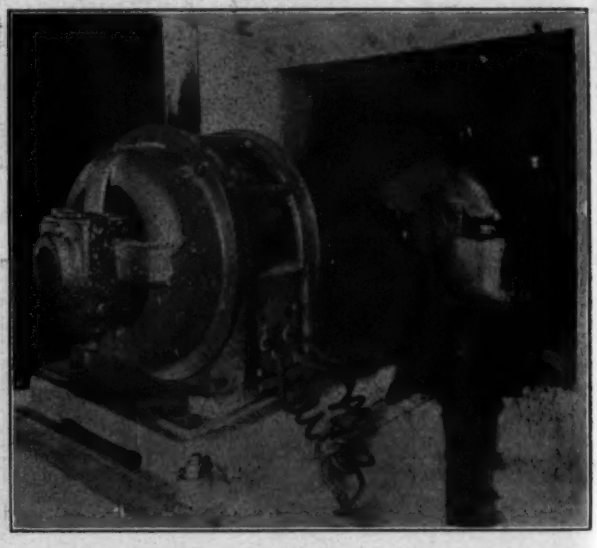
Attention is thus focussed upon this installation in its entirety, not to portray standardization in speed reducer applications, but rather to bring out the fact that the mills which have given most thought to their power transmission and drive problems find it advisable to investigate the merits of various types of speed reducers and select the one capable of discharging a particular service efficiently and economically and, what is of even greater importance, dependably. It is quite probable that in another mill, those responsible for keeping the mill in



Courtesy Foote Bros. Gear & Machine Co.

FIG. 11

Slender Column of Vertical Motor and Speed Reducer Agitator Drive Utilizes Little More Floor Area than Does the Adjacent Vertical Pipe, Robert Gair Co.



Courtesy Foote Bros. Gear & Machine Co.

FIG. 12

Stock Chest Driven Through Mill Type Herringbone Speed Reducer Direct Connected to Motor, Robert Gair Co.

commission at all times, i.e., the operating engineers, might make a very different selection of speed reducer units. In fact, modern speed reducers have been developed to such a high degree of refinement, have such flexibility and in general are so very satisfactory, convenient and dependable in power transmission service that standardization upon any one type of reducer even for a particular application cannot be advocated as yet by the open-minded. Those who favor one particular type can easily find plenty of successful installations to substantiate their recommendations. So can the advocates of other types of approved speed reducers. Perhaps the reducers with spots, so to speak, are better than those with stripes, but this is something each paper mill must of necessity decide for itself.

Each of the types of reducers employed at the Bryant Paper Company, and other approved varieties of such units, has a very much larger field of usefulness and application than can be indi-

Courtesy The Cleveland Worm & Gear Co.

FIG. 13A

Worm Gear Speed Reducer Agitator Drives, Ste. Anne Paper Co., Ltd. Sulphite Chest, Sulphite Equalizing Tank, Save All.

Courtesy The Cleveland Worm & Gear Co.

FIG. 13B

Worm Gear Speed Reducer Agitator Drives, Ste. Anne Paper Co., Ltd. Sulphite Chest, Sulphite Equalizing Tank, Save All.

Courtesy The Cleveland Worm & Gear Co.

FIG. 13C

Worm Gear Speed Reducer Agitator Drives, Ste. Anne Paper Co., Ltd. Sulphite Chest, Sulphite Equalizing Tank, Save All.

Courtesy De Laval Steam Turbine Co.

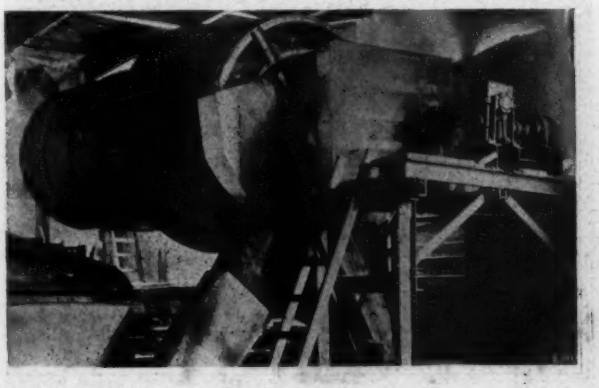
FIG. 14

Worm Gear Speed Reducers in Stock Chest Drives. Speed Ratio: 7¾ to 1. Union Bag & Paper Corp.

Courtesy Philadelphia Gear Works.

FIG. 15

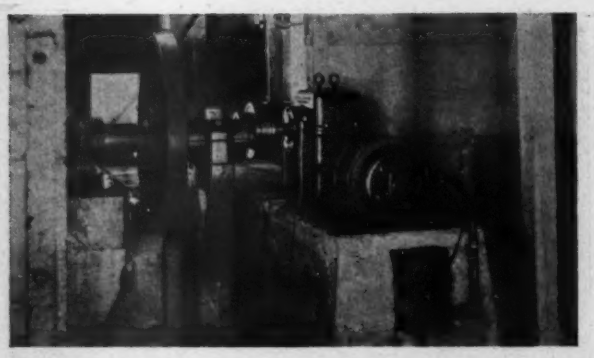
Typical Pulp Agitator Motor Drive Through the Agency of a Worm Gear Speed Reducer. Speed Ratio: 35 to 1.



Courtesy The Horsburgh & Scott Co.

FIG. 16

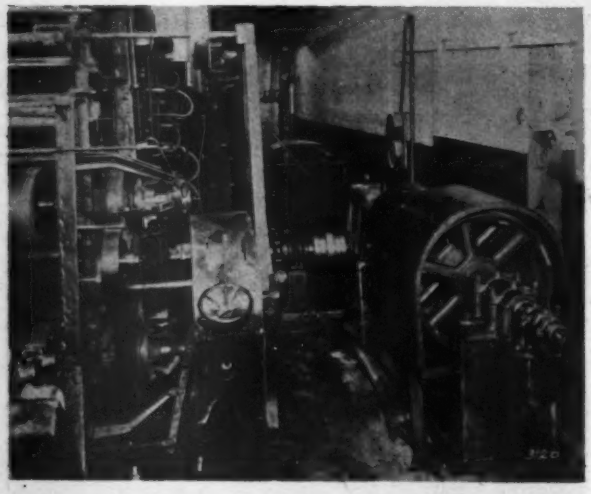
Rotary Chip Screen Driven Through Worm Gear Speed Reducer, The Algonquin Paper Co. Reduction: 25 to 1.



Courtesy The Horsburgh & Scott Co.
FIG. 17

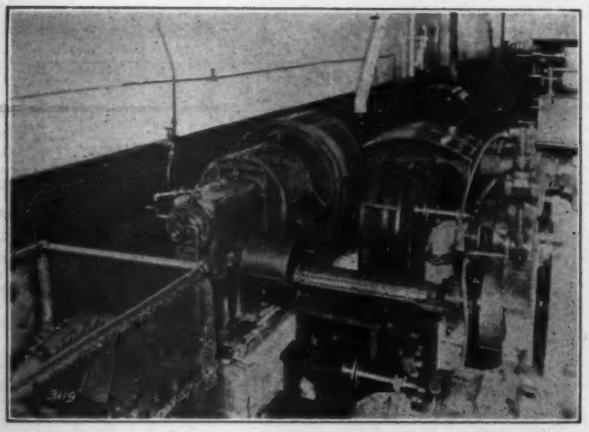
Worm Gear Speed Reducer Driving Woods Stock Thickener, The Algonquin Paper Co. Speed Ratio: 42 to 1.

cated by its employment in a single paper mill, large or small. Each one of the types presents certain more or less distinctive characteristics which may make it particularly applicable to



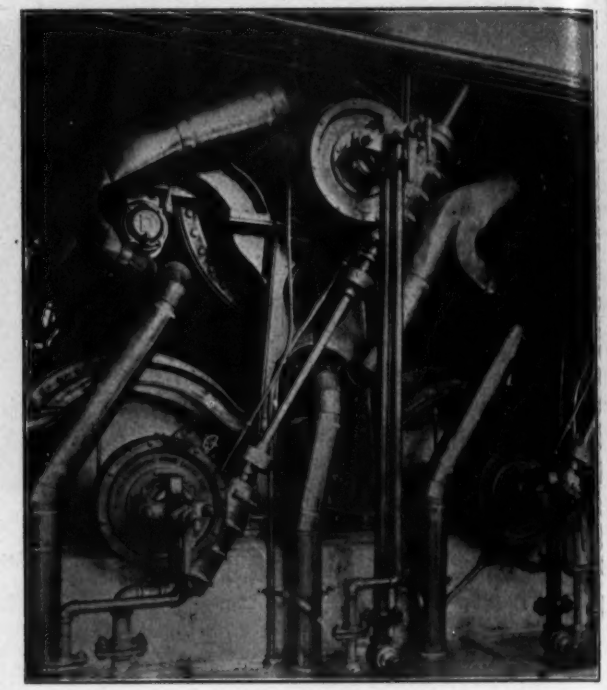
Courtesy The Cleveland Worm & Gear Co.
FIG. 18A

Worm Gear Speed Reducer Applications at the Marathon Paper Co. Calender Drive and 18-inch Suction Press Roll Drive.



Courtesy The Cleveland Worm & Gear Co.
FIG. 18B

Worm Gear Speed Reducer Applications at the Marathon Paper Co. Calender Drive and 18-inch Suction Press Roll Drive.



Courtesy General Electric Co.
FIG. 19

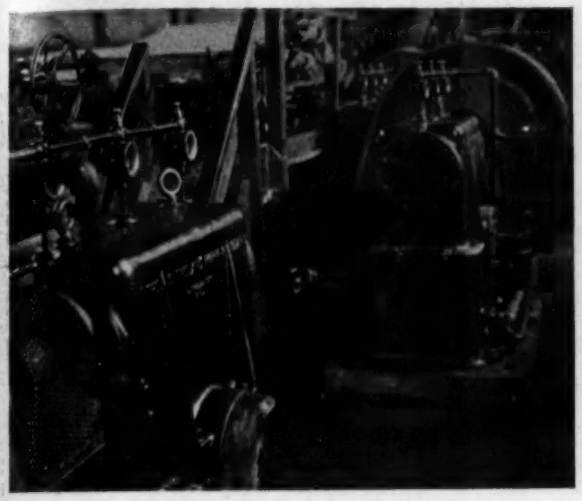
Worm Gear Drive and Bevel Gear Reduction Driving Drier Rolls, Canadian International Paper Co.

some one or another installation under certain conditions. Acquaintance with these characteristics can easily be acquired, and the farsighted mill will investigate and learn how such or such a speed reducer stood up under certain conditions. Where to look for examples of specific applications is relatively simple, almost anywhere, so it will not be out of place to mention a few examples of particular types of speed reducer applications in paper mill service here, it being understood that no recommendations are advanced, but simply illustrations cited of installations which have proved eminently satisfactory.

A particularly interesting example, showing the marked strides which have been made by speed reducer manufacturers to meet

Courtesy The Cleveland Worm & Gear Co.
FIG. 20

Complete Worm Gear Sectional Drive for Paper Machine Installed in 1926 at the Provincial Paper Mills, Ltd.



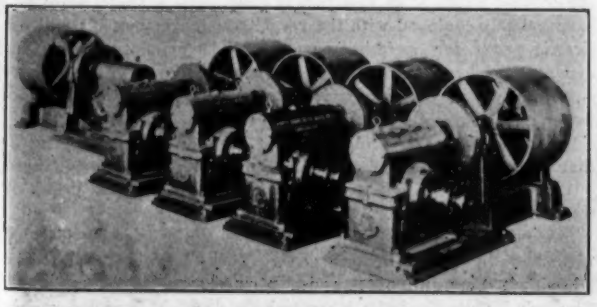
Courtesy Cleveland Worm & Gear Co.
FIG. 21
Sectional Paper Machine Drive Employing Worm Gear Speed Reducer, Hammermill Paper Co. Speed Ratio: 3 5/9 to 1.

conditions as they may pertain in the pulp and paper industry with standard equipment, is the application of six vertical type spur gear speed reducers in agitator drives at the mills of the Robert Gair Company, Piermont, N. Y. Motors and reducers, with couplings and all connections, are built up in slender columns of not much greater diameter than a fair sized pipe. The arrangement does away with the multiplicity of crown gears, pulleys, belts, etc., which have heretofore been typical of many driving mechanisms for vertical agitators, conserving much floor space and giving ready access to all equipment.

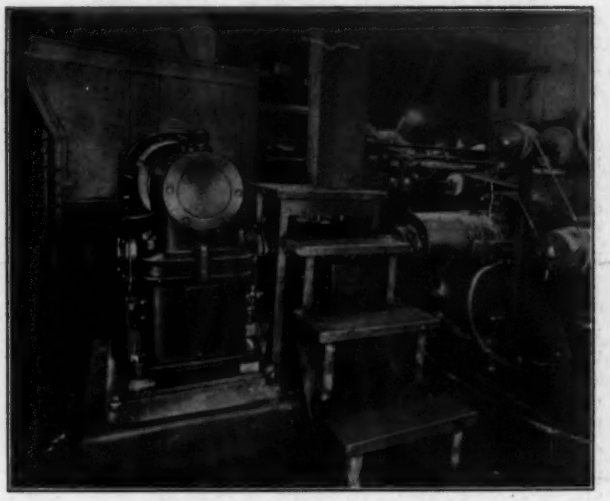
The stock chest drives at this same mill employ mill type herringbone speed reducers directly coupled to the functioning motors. This, also, makes a very compact arrangement, utilizing high efficiency motor and reducer units, and well exemplifies the advisability of employing standard equipment in preference to special devices.

Adaptability of Worm Gear Speed Reducers

The solitary example of a worm gear speed reducer driving packer screens at the Bryant plant gives little indication of the very general use of this variety of speed reducer in paper mill service, for which reason it would seem particularly proper to commence a series of discussions on the applications of distinctive varieties of speed reducers by citing a few examples of where worm gear speed reducers are meeting exacting service demands in good shape. The balance of the present discussion, consequently, will be devoted to brief remarks concerning the



Courtesy Foote Bros. Gear & Machine Co.
FIG. 22
Five of the Eleven Combination Drives for Sectional Paper Machines Installed at the Alton Boxboard & Paper Co.



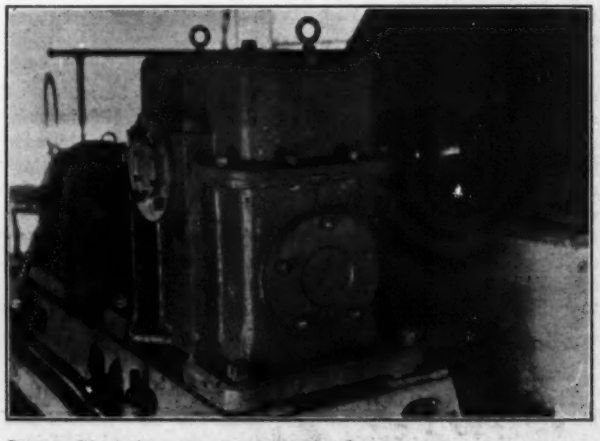
Courtesy Foote Bros. Gear & Machine Co.
FIG. 23
Two of the Four Worm Gear Paper Machine Drives at the Nekoosa-Edwards Paper Co., Inc.

various worm gear speed reducer applications shown in the illustrations presented.

At the St. Anne Paper Company, Beaupre, P. Q., the agitators in the sulphite chest, sulphite equalizing tank and the save-all are all driven by individual motors through worm gear speed reducers, the first and last at a speed reduction of 17½ to 1 and the equalizing tank agitator at a speed reduction of 16 1/3 to 1, the motors in all cases revolving at the same speed.

This form of drive finds considerable favor in driving pulp agitators in paper mill service, being low in operating cost and, what is more to the point, low in final cost. The typical view shown consists of a standard worm gear speed reducer direct connected to a 5 horsepower, 950 r.p.m. motor, the speed ratio being 35 to 1. It is also a popular one driving stock chests, as at the Union Bag and Paper Corporation, Hudson Falls, N. Y., where three 75 horsepower motors, each driving a stock chest, are directly connected through flexible couplings.

Worm gear speed reducers are employed at The Algonquin Paper Company, Ogdensburg, N. Y., for driving a rotary chip screen, speed reduction 25 to 1, and for driving a stock thick-



Courtesy W. A. Jones Foundry & Machine Co.
FIG. 24
Heavy Duty Worm Gear Speed Reducer Driving Elevator (Speed Ratio: 15⅓ to 1), West Virginia Pulp & Paper Co.

ener at a speed reduction of 42 to 1. The driving motors in both cases are of relatively high speed type, 1,200 r.p.m., and form with their direct connected speed reducers compact, rugged and very dependable driving units.

The same general variety of speed reducers is employed at the Marathon Paper Company, Rothschild, Wis., in the direct motor drives for calender and suction press roll. A somewhat more complicated drive, in that both a worm gear speed reducer and a bevel gear reduction unit are employed, is installed for the dryer rolls at the Canadian International Paper Company at Three Rivers, P. Q.

An excellent example of a complete worm gear speed reducer drive is at the Provincial Paper Mills, Ltd., Georgetown, Ont., where five such speed reducers are employed to serve drives for the couch, 1st and 2nd press and dryer, 3rd press, 1st calender and 2nd calender rolls of a 66-inch paper machine operated at a maximum speed of 300 feet per minute. An interesting sidelight on this particular installation is that the paper machine so modernized is one of the oldest in Canada and it was not until 1926 that worm gear speed reducers were installed, displacing a complicated arrangement of belts and pulleys. Another excellent example of worm gear speed reducer sectional drive application is at the mill of the Hammermill Paper Company, Erie, Pa.

Modernizing paper machines in this way is going on apace. For instance, eleven combination drives have been installed at the mills of the Alton Boxboard and Paper Company, Federal, Ill. This equipment, consisting of worm gear speed reducers connected to large paper pulleys through magnetic type friction clutches, replaces the bevel mortise gear drives still quite commonly employed for driving sectional paper machines from a single line-shaft. Four such drives have also been installed at the Nekoosa-Edwards Paper Company, Inc., plant atPort Edward, Wis.

These modifications of old-time installations are particularly noteworthy, for they have literally revolutionized paper making. Where old style paper machines have operated at speeds of from 100 to 300 feet per minute, the modern ones run as high as 1,400 feet per minute. It is modern transmission equipment, so well exemplified by present-day approved speed reducers incorporated in the electrification of the machines, which has brought this about.

There is also the field of conveyor drives in which the worm gear speed reducer is well established. This is heavy duty service, but apparently such reducers are proving highly satisfactory and economical. The ruggedness of modern worm gear reducers intended for applications of this character is well shown in the close-up view of one of the numerous elevator drives at the Mechanicville (N. Y.) plant of the West Virginia Pulp and Paper Company.

From these relatively few examples of worm gear speed reducers in paper mill service, which could readily be multiplied and added to, it is apparent that this one variety, which is probably the simplest, of speed reducers has an exceedingly wide field of proper and efficient application and commands investigation by any paper mill seeking to improve its power transmission and to simplify its power drives. Other forms of approved speed reducers, likewise, are very profitably employed in modernizing paper mill equipment installations. These will be taken up individually in subsequent discussions, to illustrate approved, though differing, practices in pulp and paper production.

Pulp Industry Helps Salt Co.

The demand for liquid chlorine for use in bleaching sulphite pulp has been increasing to such an extend that the Canadian Salt Company, Ltd., has found it necessary to make extensive additions to its chemical plant at Sandwich, and to remove the Windsor plant to that point. Gross earnings have increased from $202,298 liquid position, current assets of $802,447 and current liabilities of 15,000 shares of capital stock.

Plans for Union Bag Tacoma Mill

It was recently announced that a syndicate of prominent bankers was offering a $3,000,000 issue of 6 per cent bonds of the Union Bag and Paper Power Co., a part of the proceeds of which was to be used for the construction of a modern sulfate pulp mill at Tacoma, Wash. Plans for this mill are progressing favorably and embody many points of interest.

The initial plant will have a rated output of about 120 tons of pulp per day, but in the design consideration is being given to possible future requirements which may call for double or treble the output of the original plant. Saw mill refuse from a lumber company adjoining the mill site will be used to a large extent in pulp manufacture and is expected to result in manufacturing economies seldom approached in kraft pulp practice. The entire output of the new mill will be shipped by water to the Hudson Falls, N. Y. plant of the Union Bag and Paper Corp., of which the Union Bag and Paper Power Company is a subsidiary.

The plant is being designed by H. S. Ferguson of New York with the cooperation of the company's own engineering staff. While the general arrangement of the pulp making part of the mill will follow conventional lines, there are many features of the chemical reclaiming plant which will be carried out to a marked extent, notably in the handling of the black liquor, the clarifying and recausticizing of the green liquor and the reburning of the lime mud.

Swenson multiple effect evaporators will be used for concentrating the black liquor before it is burned in a Wagner furnace and reduced to the molten condition in a single continuous operation. Continuous green liquor clarifiers, lime slakng equipment, causticizers, and thickeners are being furnished by the Dorr Company, who will also supply Dorrco Vacuum Filters for dewatering the washed lime mud before it is reburned in a rotary kiln.

This mill will undoubtedly be followed with great interest by the pulp and paper industry, as it will be one of the largest and most modern of its type in the increasingly-important Pacific Northwest. Should additions be made within the next few years to bring the output up to the ultimate, for which tentative plans are being made, this plant may easily become the largest producer of sulfate pulp in the world.

Harrisville Paper Corp. Starts Second Machine

HARRISVILLE, N. Y., January 9, 1928.—The second machine at the mill of the Harrisville Paper Corporation was started during the past week on newsprint, according to announcement by Corwin T. Jewell, general manager of the St. Regis Paper Company, of which the Harrisville Company is a subsidiary. The Harrisville Mill which was formerly owned by the Diana Paper Company has been running one machine for several weeks on catalogue paper. This machine will continue to make catalogue and news print.

Mr. Jewell also announced that the new pulp mill of the St. Regis Paper Company, at Raymondville, said to be the most complete mill of its kind in the country, will start operations during the present week. The new mill is considered a model plant and is completely equipped with the very latest machinery. It will use electric power for operating purposes. The grinder room of the new mill consists of three lines of three stones each. Each grinder is a four pocket machine, a late invention, and considered much better than the old three pocket type.

The new unit at Norfolk which is an addition to the plant at that place will also commence operations during the present week, it was said. The Norfolk mill is a unit of the Hanna group of the St. Regis Company.

Since January 1 power for the Hanna group of mills is being furnished by the Northern New York Utilities, Inc. The Aluminum Company of America formerly supplied these mills. The grinder room of the Raymondville Pulp Mill was formerly operated by water power but is now using electric current. The new power plants of the Utilities Company at Norwood, Raymondville and East Norfolk will furnish operating power for both pulp and paper mills of the Hanna group.

New York Trade Jottings

Norman S. Meese, of the Paper Section of the Bureau of Foreign and Domestic Commerce, is visiting his many friends in New York this week.

* * *

The Nashua Package Sealing Company, Inc., of 250 West Broadway, New York, announces that David J. McGreen, who for the past ten years has been associated with the Liberty Paper Company, has been given a position on their New York sales force.

* * *

The regular weekly luncheon and meeting of the New York Division of the Salesmen's Association of the Paper Industry, held at the Canadian Club last Monday, was unusually well attended. An interesting session was thoroughly enjoyed by all those present.

* * *

George Adie, representing the New York-New England Company, paper manufacturers, of Holyoke, Mass., recently located on the fourth floor of the 200 Fifth Avenue Building, has moved to the fourteenth floor, where with larger quarters he will be better able to take care of the rapidly growing business of this company. His telephone number is Gramercy 0748, and his room number is 1418.

* * *

The Du Pont Cellophane Company, on January 1, moved their main sales offices from 40 West 40th street, New York, to the new Park Avenue Building, located at 32nd street and Fourth Avenue. The new larger quarters which the company is taking at this time are necessary due to the expansion in the use of cellophane during the past three years. It is now being used as a wrap in over thirty important industries.

* * *

Many members of the paper industry are attending the National Automobile Show at the Grand Central Palace, New York, this week. There is not an automobile in the show from the cheapest in price to the most expensive that does not present some mechanical advance over similar cars exhibited in 1927, while in artistic body design and in studious attention to the perfection of details all are superior to the models of the past year. The development in the grade of excellence has been so marked in recent years that every car offered for public enjoyment or utility today, whether it be priced at less than $500 or more than $5,000, is a quality car in all its appointments. Cheap cars no longer mean cheap looking cars. Real automobile value for 1928 exceeds that of all previous years.

* * *

The Kewaunee Manufacturing Company, Kewaunee, Wis., C. G. Campbell, treasurer and general manager, have announced that Arthur Y. Meeker, who was vice president of the Alberene Stone Company for some years, is now associated with them as special representative. His office is located at 70 Fifth Avenue, New York City. Mr. Meeker will give particular attention to the equipment of laboratories in colleges, universities, hospitals and large industrial plants, cooperating with the company's engineering and educational departments. The Kewaunee Manufacturing Company have been advising the architectural and engineering profession, college and university authorities and those who are interested in Laboratory problems or construction that Mr. Meeker's experience is now available for them. The many friends of Mr. Meeker will be glad to learn that business relations which have been established through conscientious service and fair dealing are to be continued in this new capacity with the Kewaunee Manufacturing Company.

Box Board Production During November

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 3, 1928—November production of boxboard, based on reports to the Department of Commerce by 91 firms operating 118 plants, (reports for earlier months including four concerns now out of business), was 90.8 per cent of capacity, as compared with 90.5 per cent in October and 90.7 per cent in November, 1926. In the following table the capacity data vary according to the normal number of working days in each month.

Year and Month	Operation			Production			Unfilled Orders (end of month)	
	Inch hours		Per cent of Capacity	Short Tons		Per cent of Capacity	New Orders	
	Capacity	Operated		Capacity	Output		Short Tons	
1926								
Nov.	9,997,400	8,527,390	85.3	240,175	217,850	90.7	187,295	69,118
Total 11 mos.	112,454,776	96,682,824	86.0	2,700,769	2,363,837	87.5	2,316,122	.....
1927								
January	9,997,400	6,998,505	70.0	240,175	173,629	72.3	194,285	105,669
February	9,597,504	7,583,477	79.0	230,568	189,273	82.1	183,861	102,005
March	10,797,192	8,627,946	79.9	259,389	219,824	84.7	230,065	114,369
April	10,397,296	7,771,040	74.7	249,782	205,589	82.3	197,435	101,861
May	9,997,400	7,759,515	77.6	240,175	198,710	82.7	192,616	93,248
June	10,397,296	8,200,254	78.9	249,782	213,196	85.4	212,227	94,847
July	9,997,400	7,413,384	74.2	240,175	189,875	79.1	212,434	115,097
August	10,797,192	8,885,602	82.3	259,389	232,723	89.7	227,397	112,763
Sept.	9,997,400	8,675,472	86.8	240,175	225,633	93.9	235,960	120,331
Oct.	10,397,296	8,902,325	85.6	249,782	*226,141	*90.8	221,548	105,600
Nov.	9,997,400	8,421,768	84.2	240,175	218,170	90.8	188,130	77,049
Total 11 mos.	112,370,776	89,239,298	79.4	2,699,567	2,292,763	84.9	2,295,958	.....

Year and Month	Shipments of boxboard	Stocks of boxboard, end of month	Consumption of waste paper		Per cent of Capacity	Stocks of waste paper, end of month	
	Short Tons		Capacity	Consumed		On hand	In transit and unshipped purchases
			Short Tons			Short Tons	
1926							
November	211,005	62,058	232,825	201,633	86.6	151,187	46,175
Total (11 mos.)	2,349,127	.....	2,617,439	2,261,978	86.4	.....	.....
1927							
January	175,528	53,562	232,825	163,337	70.2	163,023	38,062
February	189,032	53,327	223,512	182,322	81.6	158,222	40,602
March	217,876	54,566	251,451	209,730	83.4	155,513	43,789
April	209,944	50,211	242,138	189,942	78.4	147,938	46,314
May	200,282	48,906	232,825	191,427	82.2	149,438	59,289
June	210,320	52,452	242,138	205,537	84.9	151,671	43,807
July	194,131	49,519	232,825	180,822	77.7	151,094	51,520
August	229,719	52,283	251,451	227,430	90.4	130,503	72,087
September	228,393	*43,115	232,825	216,101	92.8	127,649	53,875
October	228,222	*41,863	242,138	220,974	91.3	*128,443	*65,008
November	216,909	42,834	232,825	208,197	89.4	136,784	52,161
Total (11 mos.)	2,300,356	.....	2,616,953	2,195,819	83.9	.....	.....

* Revised.

Union Selling Co. Burned

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, January 10, 1928.—Fire, causing a loss of $100,000, swept the five story plant of the Union Selling Company, paper distributors, and which contained other paper firms, at Cincinnati, January 4, and resulted in three firemen being removed to the hospital, as the result of injuries sustained.

Officials of the firm estimated their stock as being valued at $150,000. The blaze was discovered by two patrolmen who were passing the building at 3 o'clock in the morning.

When the first fire-fighting force arrived, the three top floors were in flames and a ten-blow alarm was sounded. The arrival of reinforcements prevented a disastrous blaze.

The origin of the fire could not be determined. Edward F. Herrlinger, president of the Union Selling Company, informed police that employees worked in the building until 10 P. M.; that the building was examined carefully before the last man left, and everything was found in good shape.

Part of the paper stock, manufactured products and raw stock, will be salvaged, it was indicated today. The firm is covered by insurance.

Members of the salvage corps had a narrow escape when the third floor collapsed as they were at work.

PAPER TRADE JOURNAL
ESTABLISHED 1872

Henry J. Berger
Editor

Ronald G. Macdonald
Editor Technical Section

Herbert J. Laughton
Assistant Editor

Thomas J. Burke, C. A.
Editor Cost Section

Reginald Trautschold, M. E.
Power Engineering Consultant

Member A. B. C. Audit Bureau of Circulations

Vol. LXXXVI New York, January 12, 1928 No. 2

THE PAPER MILL AND THE INDUSTRY

The paper industry as viewed by many, is limited to the manufacturers of paper and paper products. Specifically, for the classification of industry, this is true.

But there are other elements more important in the paper industry than mere production. One is the vast group of raw material producers which furnishes the manufacturer with the quantitative and qualitative elements to make paper and its products. Another, equally as important, is the group which consumes paper,—the wholesaler, the retailer and the ultimate consumer. In short, the paper industry extends to every home and establishment.

Because wide awake manufacturers and others recognize this broader aspect of the paper industry there have been developed various associations whose main objectives are to maintain contacts among its members, promote new avenues of distribution, prevent unethical and other practices, prevent undue discrimination by governmental or public utility agencies, etc., as well as to provide for future sources of materials. These all help to preserve the stability of an industry.

But, even so, there are those who believe that their particular company is in no manner influenced by the acts or habits of the other units in the industry,—that it stands alone as a business and would receive no benefits from direct contacts or affiliation through associations with other companies. This company then in its opinion or business judgment, takes exception to what the greatest leaders in the business in the world contend,—that the trade association is part of the company as well as of the industry and that its value has been demonstrated beyond further argument.

Twenty years ago there were relatively few trade associations. Today, there are ten thousand and, each week, we read of a new Cotton Textile Institute, or an Association of Woolen Goods Manufacturers, etc., etc.

The American Woolen Company represented over 30 per cent of the woolen production in the United States. For years it refused to have any affiliated contacts or to provide an association or the public with statistics concerning its production, shipments, stocks, etc.

What happened? Chaos! Perhaps the American Woolen Company was not wholly responsible but the fact remains that the attitude of one company was a tremendous factor in preventing the industry as a whole from knowing its actual condition and that the company suffered in proportion to the others. Intelligent organization might well have aided in preventing much of the present "sorrow" in that great industry.

In a lesser degree, the same situation applies to the paper and pulp industry.

Suppose there were no associations to publish statistics of production, shipments, inventories, capacities, etc., what might easily happen?

The extent of inventories carried by each individual company would be more or less determined by the individual management of that company without knowledge of the average situation among the fifty or five hundred other mills. And, unfortunately, the business judgment of the individual is often in error.

Just a few unbalanced inventories, with slow consumption and tightening credit and—every one knows what would happen.

A similar element would enter the situation if there were 700 companies competing against one another for pulpwood, wood pulp, sulphur, rosin, etc. There would be little basis for uniform cost methods and no basis for stability of price movements.

If foreign papers were cutting the heart from your business, you would, without associated efforts,—have to fight each case separately and the attorneys' bills would probably be greater than the budgets for all the various associations in the paper industry combined.

Collective reasoning helps to judge the future business conditions with greater safety.

Were it not for associations, manufacturers would be more reluctant to exchange or publish ideas concerning new inventions, improvements, etc. The mechanical, chemical and electrical research taking place in the industry would be considerably less. In fact, most every influence which affects the direct costs in the manufacture of paper might easily be changed were it not for the trade associations.

Those companies which do become members of these associations are bearing part of the burden which should be carried by those who are not members, but who receive all these and many other indirect benefits from the efforts of others.

Certain mills still refuse to contribute statistics to the American Paper and Pulp Association. The Association has offered an exchange of totals for individual mill figures. That exchange is entirely in favor of the mills—and every mill should co-operate. Such contribution of statistics in no way compromises any company—the figures are treated in strict confidence and only combined totals are published.

The industry as well as the various associations serving it need the co-operation of every paper and pulp mill and every paper and pulp mill can benefit from its co-operation with the association.

POWER DEVELOPMENT IN CANADA

The development of hydro-electric power in Canada, largely by or in connection with pulp and paper companies, was the outstanding feature of industrial growth in the Dominion during the year just ended. According to the Department of the Interior, during 1927 hydro power equipment was installed ready for operation to the extent of 221,655 h.p. while other undertakings were advanced to such a stage that a further total of 378,000 h.p. will be in place during the first six or seven months of 1928. With the additions during the year the total installation in Canada has

grown to a figure of 4,777,921 h.p. at the end of 1927 which will shortly be raised to more than 5,100,000 by the installations now in process of completion. The latter figure is just double the total installation in Canada at the end of the year 1920, a remarkable growth in the short period of seven years.

Additional to the undertakings which are nearing completion, there are a number of undertakings in the initial stages of construction and others about to be commenced which will result in an addition to the total installation of more than 2,000,000 h.p., much of which, it is expected will be ready for use before the end of 1930.

By far the largest proportion of new developments during the year was in the Province of Quebec, which contributed about 70 per cent of the aggregate increased capital with an addition of 149,280 h.p. Manitoba came next with an addition of 28,000 h.p., closely followed by Ontario with 26,320 h.p. British Columbia had an increase in hydro capacity of 12,500 h.p., and Nova Scotia an increase of 5,315 h.p.

Marvellum Co. Acquires Properties of Whitmore Co.

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., January 9, 1928.—Russell L. Davenport, receiver of the Whitmore Manufacturing company, announced last week that he has closed a contract for the sale of the properties of the Whitmore Manufacturing Company of this city, to the Marvellum Company. The receiver is filing a petition in the Superior Court of Hampden County for confirmation of the sale.

The Marvellum Company is a Massachusetts corporation organized in 1921. Its officers are George Senseney, president and art director; A. W. de Revere, vice-president, in charge of sales; Francis C. Heywood, treasurer and general manager, and Russell S. Bracewell, clerk and production manager.

The Marvellum Company has been located, since its organization, in the building of the Holyoke Valve and Hydrant Company on Race street in this city. Two years ago, the company took over all of the available floor space in this building, in order to carry on its rapidly increasing business, due to the remarkable increase in the demand for its products. These products are high grade decorative papers for the printing and allied trades and a wide variety of decorative specialties.

With the added facilities at its disposal in the Whitmore plant, the Marvellum Company will immediately be in a position materially to increase its business and will employ a considerably larger working force. Mr. Heywood, who, prior to the World War, was actively connected with the Whitmore Manufacturing Company, will undoubtedly develop certain coated specialties which will fit in with the present products of the Marvellum Company and the facilities of the Whitmore Manufacturing Company.

It is the intention of the Marvellum Company to continue operations in its Race street plant until certain alterations in the Whitmore plant are made so that there will be no loss of production during the transfer.

Interest Increases in Government Paper Bids

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 11, 1928.—Ansel World, clerk of the Joint Congressional Committee on Printing is of the opinion that more interest is being shown this year in the bid opening for paper for the Government Printing Office.

He had received one bid prior to January 1 although the opening does not take place until January 30, This is the first time, he says, that any bids have ever been received so far in advance. In addition, he is receiving requests from paper companies for bidding blanks who have never bid before on the annual paper supply.

Canadian Paper Exports Increase

Exports of wood-pulp and paper from Canada for November were valued at $16,501,663, according to the report of the Canadian Pulp and Paper Association. This was an increase of $1,772,402 over the total for October and of $950,138 over that for November, 1926.

Increases were shown both under wood-pulp and paper, the value of the wood-pulp exported being $4,144,966 and of paper $12,356,697 as compared with October, totals of $3,707,222 and $11,022,039, respectively.

Details for the various grades of pulp and paper are as follows:

	November, 1927 Tons	$	November, 1926 Tons	$
PULP:				
Mechanical	24,123	686,295	39,241	1,178,957
Sulphite Bleached	21,395	1,705,417	16,857	1,319,714
Sulphite Unbleached	16,983	859,723	22,576	1,249,256
Sulphate	14,313	845,847	15,868	970,508
Screenings	2,384	47,684	.....	.....
	79,198	4,144,966	94,542	4,718,435
PAPER:				
News Print	179,969	11,771,491	153,729	10,118,572
Wrapping	1,068	116,200	1,927	225,303
Book (cwts.)	8,767	65,782	6,515	54,882
Writing (cwts.)	2,556	20,168	719	5,648
All Other	.....	383,056	.....	428,685
		12 356,697		10,883,090

For the eleven months ending November 30th, the exports of wood-pulp and paper were valued at $161,277,363, as compared with $158,289,495 in the corresponding eleven months of 1926, an increase for the current year of $2,987,868.

There was a decline in the value of pulp exports in this period, the total value being $43,183,395, compared with $47,722,945 in the eleven months of 1926, but exports of paper increased in value from $110,566,550 in eleven months last year to $118,093,968 for this year.

Details are given below:

	11 months, 1927 Tons	$	11 months, 1926 Tons	$
PULP:				
Mechanical	240,558	7,194,336	350,787	10,576,242
Sulphite Bleached	218,362	16,976,257	185,723	14,490,697
Sulphite Unbleached	175,264	9,401,191	230,322	13,031,900
Sulphate	154,825	9,300,335	154,899	9,624,106
Screenings	16,381	311,276	.....	.....
	805,390	43,183,395	921,731	47,722,945
PAPER:				
News Print	1,712,665	112,143,207	1,575,578	103,745,021
Wrapping	13,161	1,483,338	17,493	2,141,897
Book (cwts.)	94,641	652,661	55,282	473,070
Writing (cwts.)	14,089	112,827	17,202	128,378
All Other	.....	3,701,935	.....	4,078,184
		118,093,968	.....	110,566,550

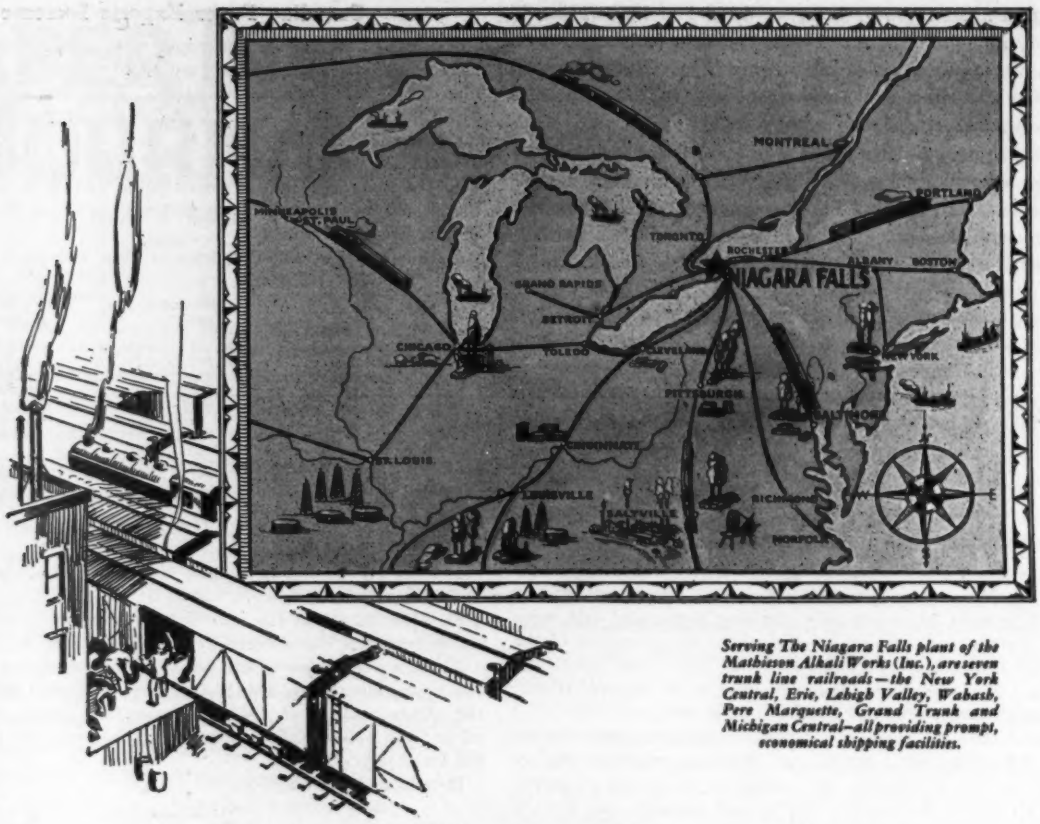
Pulpwood exports for the eleven months amounted to 1,489,313 cords valued at $15,162,484, as compared with 1,316,189 cords valued at $13,287,074 in the corresponding months of 1926.

Paper Undervaluation Cases Settled

WASHINGTON, D. C., January 11, 1928.—It is reported that nearly $1,000,000 worth of foreign paper is involved in a series of undervaluation cases recently settled, involving a single importer. The Customs Service officials will not discuss the matter, or disclose the identity of the firm reported to be involved. The matter, according to report, has been closed with a substantial payment of duty by the company under investigation.

The paper is said to be chiefly high grade French paper and as seen by the figures mentioned is imported regularly in large quantities.

The story told in Washington is that some time ago the firm involved was suspected of smuggling, or at least of illegal importation of another commodity. This disclosure was followed by an investigation of the company's entire importing operations, for many months past, with the result that it was found that deductions from the dutiable value of the paper had been taken improperly. The settlement is said to be in the full amount of the position taken by the government officials.



Serving The Niagara Falls plant of the Mathieson Alkali Works (Inc.), are seven trunk line railroads—the New York Central, Erie, Lehigh Valley, Wabash, Pere Marquette, Grand Trunk and Michigan Central—all providing prompt, economical shipping facilities.

At Industry's Door Step—

With the Mathieson plant at Niagara Falls as a central point, draw a circle with a radius of four hundred miles and you have marked the heart of Industrial America.

But strategic location at the crossroads of industry is just one of the facilities for service that Mathieson offers purchasers of industrial chemicals. From the Niagara Falls plant seven trunk line railroads keep Mathieson products moving smoothly and promptly—regardless of whether the demand is for quick shipments to meet an emergency, or for regular consignments to fill quantity contracts.

CAUSTIC SODA
LIQUID CHLORINE
BICARBONATE OF SODA
MODIFIED VIRGINIA SODA
SODA ASH
BLEACHING POWDER
ANHYDROUS AMMONIA
AQUA AMMONIA

The EAGLE-THISTLE trade mark is a widely recognized symbol of this service. In purchasing industrial chemicals it signifies utmost value in product and utmost efficiency in service.

The MATHIESON ALKALI WORKS *Inc.*
250 PARK AVE. NEW YORK CITY
PHILADELPHIA CHICAGO PROVIDENCE CHARLOTTE CINCINNATI

MATHIESON
Industrial
Chemicals

Works:
Niagara Falls, N. Y.
Saltville, Va.

Warehouse Stocks at all Distributing Centers

DEAL DIRECT WITH THE MANUFACTURER

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Edited by
RONALD G. MACDONALD, Secretary

Power Requirements of Paper Machines*

By H. W. Rogers[1]

The paper machine, as a machine, has always excited a great deal of interest and one may stand by the hour watching the rapid transformation from a thin solution of wood fiber into a sheet of paper, marveling at the extremely short time required. This first impression is gradually replaced by the immensity of the machine itself and, the question of power is a natural thought, a thought which has been in the minds of engineers for some time.

Recent developments in paper machine drives have made it possible to greatly extend our knowledge of this machine and study the effect of changes in width, speed, grade of paper, etc. During the past seven years a great many sectional electric drives have been installed on paper-machines of every size and description and from the mass of power data obtained, it has been possible to derive power constants and closely estimate the requirements of any new machine.

The accompanying power chart (Fig. 1) is based on the

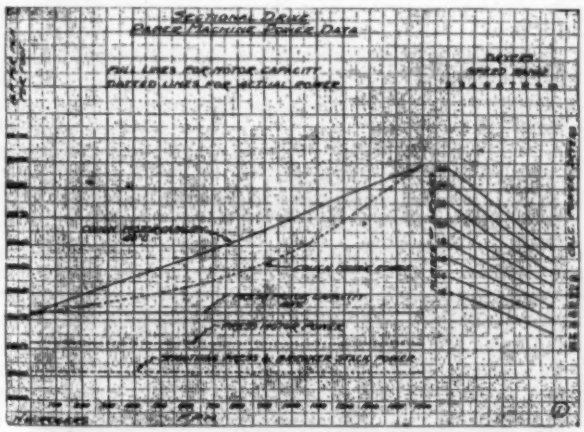


FIG. 1

averages of all readings taken over a period of several years and clearly shows the characteristics of the machine.

Power, Speed and Weight of Paper

The couch, for instance shows a gradual increase in the power constant with increasing speed, while the calender shows an increasing power constant with decreasing speeds.

On the couch the greater part of the power is due to the friction of the flat boxes and since heavy papers are usually made from free stock at low speeds, it is impossible to maintain a high vacuum; consequently the power constant decreases with the

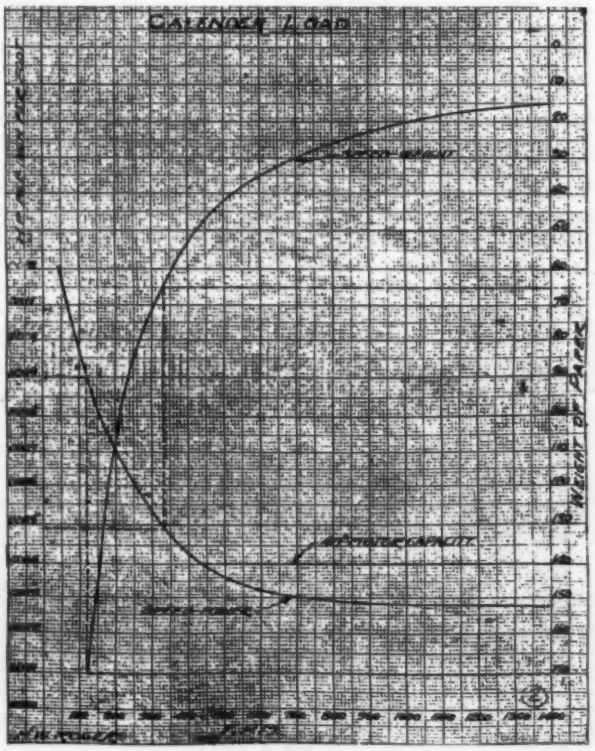


FIG. 2

heavier sheets. With glassine and bond papers, which are also made at slow speeds, the stock is slower and it is necessary to maintain a higher vacuum to remove the water with a resulting higher power than shown on the power curve.

The power required by the calender section increases with the weight of the sheet, as shown on the chart, (Fig. 2) partly because of the extra work required to calender the sheet and partly due to the heavier tension which is required to keep wrinkles out of the sheet. The latter results in unloading the

* Paper presented at meeting of Canadian General Electric Pulp and Paper Specialists, Toronto, October 13 and 14, 1927.
[1] Associate member TAPPI.

dryer motor and in reality the calender motor is actually pulling the dryers. It is undoubtedly necessary to use a certain amount of tension to obtain a smooth sheet, but the tendency is to carry it too far, resulting in a larger calender motor than should really be necessary.

It is rather difficult to segregate the calender load into its component parts, but an attempt has been made with the results as shown. (Fig. 3).

Presses, smoothing presses, breaker stacks, and reels are more or less constant in their torque requirements regardless of the speed at which paper is being made or the weight of paper. In other words the horsepower is directly proportional to the speed and width, which is not the case with the calender or couch.

Power Requirements of Driers

The power requirements of a nest of dryers naturally depends upon the number of driers in the nest, but for a given nest of driers the torque requirements are constant, i. e., the horsepower varies directly with the speed except at extremely low speeds where the oil film in the bearings breaks down and the power increases. The starting torque on dryers is from 4.5 to 5.0 times the running torque and it is essential that a motor be selected with this in mind.

Selection of Motors

On all paper machines the sectional power is subject to slight variations, due to variations in suction maintained, hot bearings, etc., and while the curve chart gives the calculated or estimated power requirements on each section, it also gives the power base for selecting motors, which is slightly higher and will take care of the overloads encountered under ordinary conditions of operation.

The power curves are used as a basis for selecting the motors but the inherent characteristics of direct current motors and other features incident to the machine operation must also be taken into consideration.

All paper machines, regardless of the kind of paper being manufactured, have a "draw" between sections or a slight difference in speed, which varies with the grade of paper, condition of stock, etc., and must of necessity be adjustable within certain limits. This draw is a gradual increase in speed from the wet end of the machine to the dry end, with the larger part of it between the couch and first press, except in the case of crepe

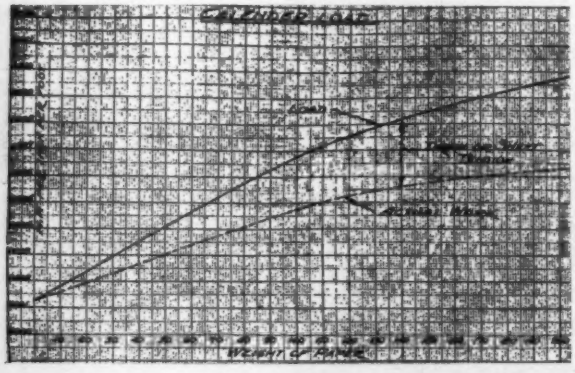


FIG. 3

paper where the couch runs faster than the rest of the machine.

Careful analysis of operating conditions has established a draw range of about 20 per cent which will meet almost all grades of paper and while the greater percentage fall well within this range occasionally something in excess of this is required on the couch.

This condition demands that a certain amount of speed control by shunt field adjustment be obtainable and the accompanying chart (Fig. 4.) illustrates the draw ranges possible on a properly designed sectional electric drive.

The driers are usually considered as a gage to the speed of a paper machine and by making this section adjustable, it is possible to obtain a flat speed from the couch to the calender or a draw as high as 34 per cent between the couch and driers without exceeding 20 per cent on any individual section.

The second and third presses on most machines consist of rubber covered bottom rolls and bronze, wood or stone top rolls, and since the rubber covered roll is subject to regrinding and a

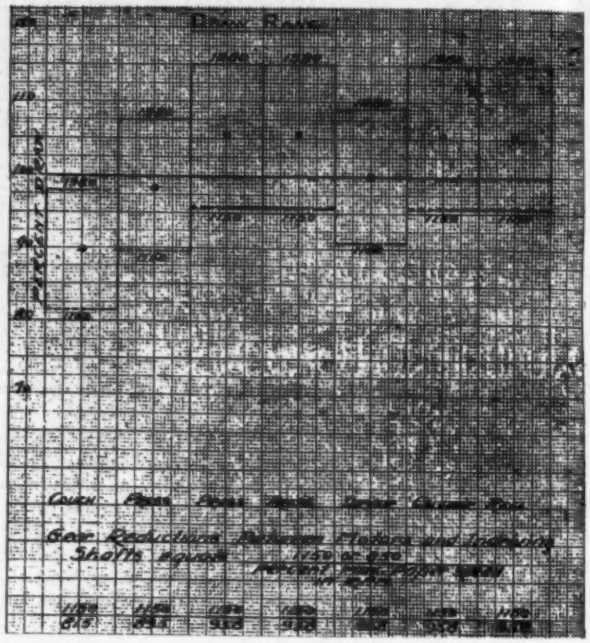


FIG. 4

consequent reduction in its diameter, the motor must operate at a higher speed under such conditions to maintain the same peripheral or linear speed. This condition is taken care of, as indicated on the chart. Suction couch rolls and suction press rolls are not subject to these changes since they are made of brass.

The direct current motor as used in ordinary industrial service is fairly well understood and presents no particular difficulties because it invariably operates from a constant voltage source, usually with a constant excitation on the field, and although adjustable speed direct current motors are also used in abundance, they do not give rise to any particular difficulty.

Importance of Regulation

When used for sectional electric paper machine drives, however, the duty is more exacting, regulation becomes all important and the motor must operate over wide speed ranges and varying voltage. It is under these conditions that the inherent characteristics come to the surface and they must be considered carefully in selecting the motor.

The usual method of controlling the speed of paper machine motors is by means of a speed regulator of the synchronous type which operates on the field of the motor to maintain a constant speed under all load conditions throughout the operating range of motor. Obviously, then, there are certain conditions to be met to insure successful operation.

1—The motor is subject to certain field adjustment due to the draw range and a still further field adjustment due to maintaining a constant speed under load variations from 25 to 150 percent.

2—The motor must operate over speed ranges from 2 to 1 up to 10 to 1 by voltage control.

3—The motor must maintain a constant speed and deliver

torques varying from 25 to 150 percent of the normal torque.

4—The motor must be controlled from a master which establishes the voltage at which it must operate and still meet the above conditions.

Characteristic of d. c. Motors

Before considering the selection of motors, it may be well to cite an inherent characteristic of direct current motors which has a direct bearing upon the selection, i. e., any direct current motor which is operating under shunt field control to maintain definite speed breaks down at a point where the internal resistance drop is one half of the terminal voltage, minus the brush drop.

The increase in torque between the point where the internal resistance drop is one third of the terminal voltage minus the brush drop, and the break down point is approximately 10 percent and it is obtained at the expense of a 50 per cent increase in current: consequently, it is not advisable, economically, to go beyond the point where the internal drop is one third of the terminal voltage.

The use of a master set to control the speed of the sectional motor units is an essential feature on wide range machine because the tension in the sheet between the driers and calenders, and the consequent unloading of the drier motor, would affect the speed of the entire machine if the dryers were used as a master. On news machines, and other machines operating over narrow speed ranges making light weight papers, the driers may be used as a master satisfactorily, although the "tie-in" ceases to exist when the dryers are down. When using the master set there are two alternatives available.

1—A master set with a small capacity motor driving the generator and some form of speed regulator to maintain constant speed.

2—A master set with an over capacity motor driving the generator and no speed regulator.

Simplicity is of paramount importance in a paper mill and for that reason alone the second scheme seems more advantageous than the first and is used by the General Electric Company. In other words the armature drop in the motor is extremely low and the speed of the master set is maintained practically constant regardless of the load variations on the master generator.

The speed of the master and incidentally the speed of the paper machine is determined by the main generator voltage; consequently, the master set definitely establishes the voltage at

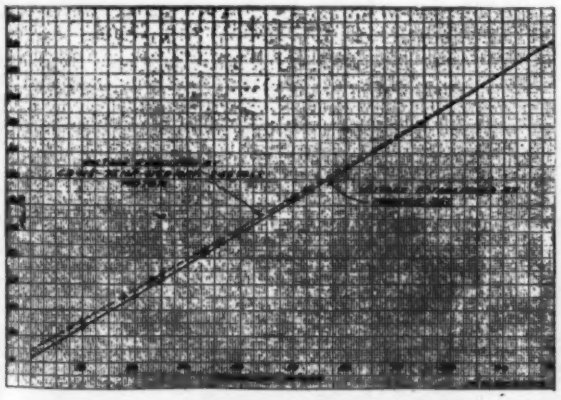


FIG. 5

which the sectional motors must operate as indicated by the accompanying chart, and since the armature drop of the sectional motors is greater than that of the motor driving the master set, they are forced to operate on a slightly lower voltage than they actually require to give the proper speed. (Fig. 5). The speed regulator forces the motors to operate at the proper speed by weakening the field. For example, the master set establishes a voltage of 63 volts for one quarter speed which would cause the motor to operate at 23 percent speed since it requires 67 volts to operate at 25 percent speed, owing to its higher armature voltage drop. The motor field must, therefore, be weakened to bring the motor speed from 23 up to 25 percent.

Characteristics Illustrated

To illustrate the inherent characteristics of the direct current motor, I have considered a 75 horsepower, 1150 rpm.—245 volt—

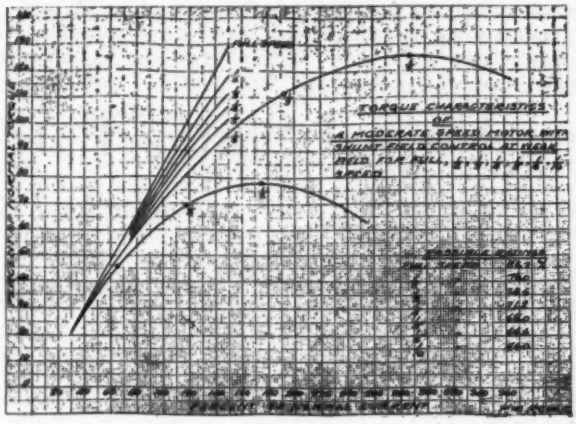


FIG. 6

shunt wound—40 deg. C. rise, continuous rated motor controlled from a master set by means of a speed regulator operating on the shunt field. The speed torque characteristics of this motor are shown for full speed, half speed, third speed, quarter speed, fifth speed, sixth speed and one tenth speed at both maximum (Fig. 6) and minimum (Fig. 7) draw but the maximum draw is a limiting feature and must, therefore, be given greater consideration in determining the possible rating of the motor.

As previously stated, we desire to maintain the speed constant between the load limits of 25 per cent and 150 per cent of the normal torque rating and we do not wish to exceed 150 per cent of the normal 40 deg. C. current rating of the motor in any case. Since torque is a function of armature current and field

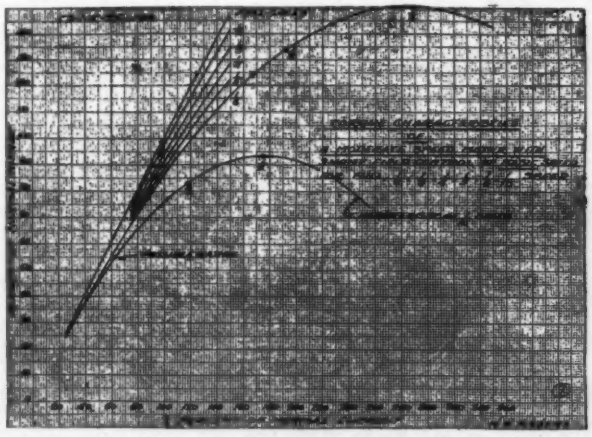


FIG. 7

flux, the 150 per cent current does not give 150 per cent torque, because of the shunt field manipulation and the lower the operating speed of the motor, the greater the change in field strength necessary to maintain a constant speed and the less torque is available with the same armature current.

What we are primarily interested in is torque, or turning effort, and speed regulation; therefore, we consider the torque available at the 150 per cent current value as 150 per cent of the

normal torque rating it is possible to give the motor under the changed conditions of operation and the 75 horsepower motor under consideration has available only that percentage of its normal rating shown in the tabulation.

Apparently the motor has been derated but in reality we have arrived at the same result as would maintain if we had deliberately designed a motor to meet the service conditions. In other words, we have a motor with a low armature drop and good regulation, designed to meet the conditions of service encountered in paper machine operation and it should not be considered as a derated motor, nor should it bear the 40 deg. C. nameplate rating because it will not deliver that rating as a paper machine motor. It should, rather, be rated in accordance with the power it will deliver, bearing in mind that it will deliver 150 per cent of this rated load and still maintain the proper speed. Naturally the temperature rise on such a motor will be somewhat less than 40 deg. C. because a low armature resistance and a high rise do not go together. Also when a motor is properly selected, on the above basis with due consideration to the available torque and speed regulation characteristic it matters little what horsepower rating it bears. What we are primarily interested in is that it will meet all of the demands placed upon it without any question.

United States Patents on Papermaking

October 11 to November 29, 1927

Compiled by Clarence J. West

1,644,867. Suction box. Earl E. Berry, assignor to Beloit Iron Works, Beloit, Wis. Oct. 11, 1927. (Cl. 92—51.)

1,645,061. Method of bleaching paper pulp. Otto Kress, assignor to American Lakes Paper Co., Chicago, Ill. Oct. 11, 1927. (Cl. 8—2.)

1,645,068. Machine for making a fiber composition. Wm. G. O'Brien, assignor to The Goodyear Tire and Rubber Co., Akron, O. Oct. 11, 1927. (Cl. 92—39.)

1,645,135. Machine for making cartons. Solomon H. Goldberg and Walter H. Hermsdorf, Chicago, Ill. Oct. 11, 1927. (Cl. 93—58.)

1,645,141. Stencil sheet. Shinjiro Horii, Tokyo, Japan. Oct. 11, 1927. (Cl. 41—38.6.)

1,645,189. Paper towel. Arvid Ek, assignor to Brown Co., Portland, Me. Oct. 11, 1927. (Cl. 206—57.)

1,645,249. Method of preparing transparent paper with opaque markings. Kellogg Sinclair Maclachlan, assignor to Lincoln Pulp and Paper Co., Ltd., Merritton, Canada. Oct. 11, 1927. (Cl. 92—39.)

1,645,366. Method of drying material. John E. Alexander, Port Edwards, Wis. Oct. 11, 1927. (Cl. 34—24.)

1,645,593. Colored stencil card. Erwin A. Geiger, assignor to Rapid Addressing Machine Co., Ridgewood, N. J. Oct. 18, 1927. (Cl. 41—38.5.)

1,645,754. Method and apparatus for producing paper pulp. Wallace H. Howell, Jr., Willsboro, N. Y. Oct. 18, 1927. (Cl. 92—7.)

1,645,931. Method and apparatus for making paper plates and the like. Harry E. Ruckert and Bernard M. Fine, assignors to Sanitary Products Corpn. of America, Philadelphia, Pa. Oct. 18, 1927. (Cl. 93—60.)

1,645,997. Manufacture of straw board. Mary E. Pennington, St. Davids, Pa., and Alex. Brooking Davis, Cincinnati, O. Oct. 18, 1927. (Cl. 92—3.)

1,646,044. Rope paper-carrier for paper machines. Joseph F. Thibedeau, Adelard Deguire, Wm. Turner and Archibald McDermid, assignors to The Spanish River Pulp and Paper Mills, Ltd., Espanola, Canada. Oct. 18, 1927. (Cl. 92—49.)

1,646,084. Method and apparatus for treating fibrous materials. Thomas L. Dunbar, assignor to Stebbins Engineering and Manufacturing Co., Watertown, N. Y. Oct. 18, 1927. (Cl. 92—7.)

1,646,087. Process of treating fibrous vegetable material. Robert Forsyth, assignor to Henry J. Rodgers, receiver. Oct. 18, 1927. (Cl. 92—4.)

1,646,426. Envelope and envelope blank. Mary Irene Snape, Springfield, Ill. Oct. 25, 1927. (Cl. 229—72.)

1,646,597. Process of making plaster board. Orville L. Routt, Los Angeles, Calif. Oct. 25, 1927. (Cl. 56—41.)

1,646,598. Plaster board. Orville L. Routt, assignor to Plastoid Products, Inc., Los Angeles, Calif. Oct. 25, 1927. (Cl. 72—124.)

1,646,802. Manufacture of paper cups. Joseph V. Weckbaugh, assignor to American Cuptor Corpn., New York City. Oct. 25, 1927. (Cl. 93—36.)

1,646,803. Paraffin-resisting surface for paraffine absorbent boxes and method of making same. Howard F. Weiss, assignor to C. F. Burgess Laboratories, Inc., Dover, Del. Oct. 25, 1927. (Cl. 216—62.)

1,646,918. Scoring cutter. Charles S. Lenston, assignor to Hobbs Manufacturing Co., Worcester, Mass. Oct. 25, 1927. (Cl. 92—70.)

1,646,980. Safety device for calenders. Albert H. Peglow, assignor to The Fisk Rubber Co., Chicopee Falls, Mass. Oct. 25, 1927. (Cl. 18—2.)

1,647,072. Adhesive-applying mechanism for paper-box-making machines. Samuel Bergstein, assignor to The Interstate Folding Box Co., Middletown, O. Oct. 25, 1927. (Cl. 91—43.)

1,647,073. Means and method for sealing boxes and the like. Samuel Bergstein, assignor to The Interstate Folding Box Co., Middletown, O. Oct. 25, 1927. (Cl. 93—2.)

1,647,682. Magazine grinder. Otto Andresen, Vindern, near Oslo, Norway. Nov. 1, 1927. (Cl. 83—75.)

1,647,982. Pulp beater. Laurence Albeus Barry, Bogota, and Laurence Ambrose Barry, Irvington, N. J. Nov. 8, 1927. (Cl. 92—24.)

1,648,111. Method of treating sulphate and soda pulp. Richard Collins, Three Rivers, Quebec, Canada. Nov. 8, 1927. (Cl. 92—2.)

1,648,229. Paper making machinery. Ralph E. Heisel, assignor to The Mead Pulp and Paper Co., Dayton, O. Nov. 8, 1927. (Cl. 92—44.)

1,648,237. Composition paper or pulp board and method of making the same. John H. Mitchell, Habana, Cuba. Nov. 8, 1927. (Cl. 92—3.)

1,648,479. Equalizing device for rewinding web paper. Henry Hilbert, Cincinnati, O. Nov. 8, 1927. (Cl. 74—34.)

1,648,768. Manufacture of envelopes. Theodor Hugo, Wilmersdorf, near Berlin, Germany. Nov. 8, 1927. (Cl. 93—61.)

1,648,838. Process of manufacturing paper. Arthur E. Barnard and Robert G. Caswell, assignors to W. B. Pratt, Inc., Newtonville, Mass. Nov. 8, 1927. (Cl. 92—21.)

1,649,053. Stencil sheet and process of producing the same. Alex. Brooking Davis, assignor to A. B. Dick Co., Chicago, Ill. Nov. 15, 1927. (Cl. 41—38.6.)

1,649,281. Method of loosening vegetable fibers. John Billwiller, Seehausen, Germany. Nov. 15, 1927. (Cl. 92—9.)

1,649,701. Process for obtaining liquid sulphurous acid from the products of combustion of sulphur or sulphurous pyrites. Paul Jodeck, assignor to Allgemeine Gesellschaft für Chemische Industrie m. b. H., Berlin-Schoneberg, Berlin, Germany. Nov. 15, 1927. (Cl. 23—178.)

1,649,760. Envelope machine. Matthew Vierengel, assignor to M. Vierengel Machine Co., Inc., Brooklyn, N. Y. Nov. 15, 1927. (Cl. 93—63.)

1,649,942. Method of producing sulphite pulp. James Brookes Beveridge, Richmond, Va. Nov. 22, 1927. (Cl. 92—11.)

1,650,022. Preparing stuff for papermaking. Ernst Mahler and Henry A. Rothchild, assignors to Kimberly-Clark Company, Neenah, Wis. Nov. 22, 1927. (Cl. 92—21.)

1,650,049. Method of producing cloth boards. Harry Bridgman Smith, assignor to Lightship Cloth Board Corpn., Brooklyn, N. Y. Nov. 22, 1927. (Cl. 93—1.)

1,650,050. Method of making paper structures. Harry Bridgman Smith, assignor to Lightship Cloth Board Corpn., Brooklyn, N. Y. Nov. 22, 1927. (Cl. 93—1.)

1,650,051. Cloth board, winder or similar article. Harry Bridgman Smith, assignor to Lightship Cloth Board Corpn., Brooklyn, N. Y. Nov. 22, 1927. (Cl. 206—50.)

1,650,079. Method of coloring surfaces. Josef Lecjaky, assignor to Joseph Sec, New York City. Nov. 22, 1927. (Cl. 101—129.)

1,650,100. Dewatering apparatus for pulp. Julius Stephansen, Drammen, Norway. Nov. 22, 1927. (Cl. 92—43.)

1,650,358. Process and apparatus for producing a gas of uniform sulphur dioxide content. Henry Howard, assignor to The Grasselli Chemical Company, Cleveland, O. Nov. 22, 1927. (Cl. 23—179.)

1,650,372. Scenery-forming paper. Conrad B. Maurer and Howard P. Maurer, Philadelphia, Pa. Nov. 22, 1927. (Cl. 41—26.)

1,650,399. Method of applying top or bottom cover paper to boxes and the like. Harry Bridgman Smith, New York City. Nov. 22, 1927. (Cl. 93—54.)

1,650,585. Transparent paper machine. Edouard M. Kratz, assignor to Marsene Products Co., Chicago, Ill. Nov. 22, 1927. (Cl. 18—15.)

1,650,927. Mechanism for cutting sheets from webs. Howard M. Barber, assignor to C. B. Cottrell and Sons Co., New York City. Nov. 29, 1927. (Cl. 164—68.)

1,650,928. Driving mechanism for web feeding and cutting machines. Howard M. Barber, assignor to C. B. Cottrell and Sons Co., New York City. Nov. 29, 1927. (Cl. 74—101.)

1,650,930. Plaster wall board. Charles R. Birdsey, Hinsdale, Ill. Nov. 29, 1927. (Cl. 72—16.)

1,650,938. Pressure gauge for paper-mill jordans. Wm. P. Feeney, Cheboygan, Mich. Nov. 29, 1927. (Cl. 92—27.)

The Design of Furnaces for Pulverized Coal

The Combustion Engineering Corporation, of 200 Madison Avenue, New York, have just published an authoritative treatise, by Martin Frisch, entitled "The Design of Furnaces for Pulverized Coal," which is extremely interesting to engineers connected with power generation.

There is no phase of development in the field of steam generation in which more rapid progress has been made than in the design of furnaces. Theories and principles that were closely adhered to five years ago are recognized as wholly inadequate for present day requirements.

Readers who are interested in combustion and steam generation will welcome the publication of this pamphlet and will be glad to know it is available.

Drive for Paper Machine Driers

The tremendous increase in speed of modern paper machines, particularly news print machines, which are now being designed to operate at speeds 100 per cent higher than the highest ones used as recently as a decade ago, has necessitated much greater refinement in the drives for the machine, and especially for the numerous drier rolls used in modern high speed news machines. Dominion Engineering Works, of Lachine, Que., were the first to design and construct machines to operate at 1,000 feet per minute or more, and from time to time they have made interesting innovations in the method of driving these machines. One of these, invented by B. A. Malkin, was patented at Washington on June 15, 1926, under No. 1,588,796, and is described herewith.

It comprises a longitudinal sectional main driving shaft, driven at a point preferably midway between its ends. Driven by bevel gearing are the drier roll driving spindles, which are provided with worms which engage with worm wheels secured to the ends of the drier roll spindles. Each spindle is adapted to drive two or more drier rolls positioned at different levels and is arranged at an angle to the horizontally disposed main driving shaft. The worm and worm wheel and bevel gearing are enclosed in gear cases which have anti-friction bearings or thrust bearings fitted therein to take up any unevenness which may occur in the drive through any inadvertence, such as the breaking of the paper or felts. All shafting is provided with means to allow for expansion of the parts due to the variations in temperature which occur in such machines.

Fig. 1 is a partial side elevation of a paper machine showing the improved drive;

Fig. 2 is a partial elevation of the device shown in Figure 1;

Fig. 3 is an enlarged side elevation of one section of the driving mechanism;

Fig. 4 is an enlarged sectional elevation of the bevel gearing and housing on the main driving shaft;

Fig. 5 is an enlarged sectional detail of the anti-friction bearings mounted in the worm gear casings;

Fig. 6 is an enlarged sectional detail of the end thrust bearing in the lowermost gear casing;

Fig. 7 is an enlarged sectional detail of one of the main driving shaft couplings;

Fig. 8 is an enlarged sectional elevation of the expansion couplings on the roll-driving spindles; and

Fig. 9 is a side elevation showing the clutch teeth.

(11) designates the under-framing upon which are secured the bearings (12) for the lower drying roll spindles (13) supporting and rotating with the drier rolls (14). Also mounted on the lower framing are the upper drying roll bearing supports (15) upon which are mounted the bearings (16) supporting the spindles (17), to which are secured the upper drying rolls (18). The rolls are arranged in the usual manner, that is, the lower rolls are spaced below and midway between the upper drying rolls. Between each pair of lower drying rolls and mounted in suitable bearings (19) secured to the supports (15) are the guide rolls (20) for the lower drier felt (21) which passes around the under side of the rolls (14) and over the guide rolls (20). The upper drier felt (21a) passes over the drier rolls (18) and under the guide rolls (21b), spaced between the drier rolls (18) and mounted in bearings (22), secured to the lower side of the guide roll frame secured to the supports (15).

The paper passes through the machine from right to left and

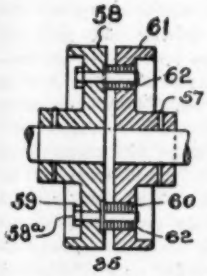


FIG. 8

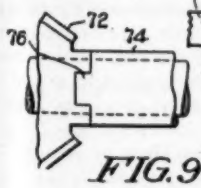


FIG. 9

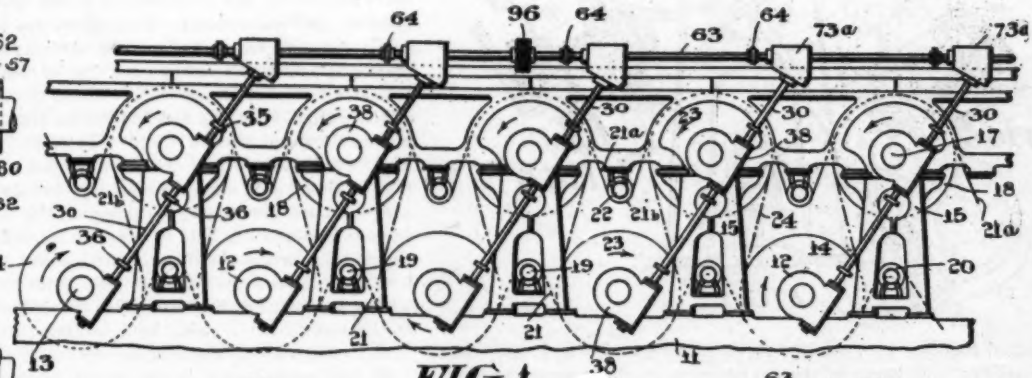


FIG. 1

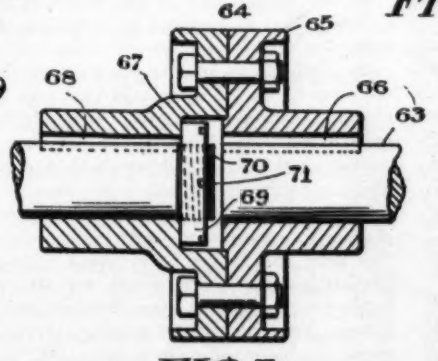


FIG. 7

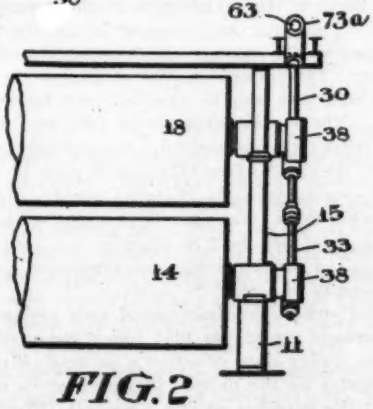


FIG. 2

the rotation of the drier rolls is indicated by the arrows (23). The paper sheet is indicated by the chain dotted line (24), and its location is between the felt and drier rolls, passing alternately under the lower and over the upper rolls.

Secured to one end of each of the drier roll spindles are the worm wheels (25), the lower ones having teeth (26) adapted to engage the right-handed worms (27), while the upper worm wheels are provided with teeth (28) which engage the left-handed worms (29). Both worms of each set are mounted on one side of the worm wheels and may be made integral with or secured to the driving spindles (30), which are built in sections to simplify erection, machining and handling, and also to allow joints to be made therein for expansion. The spindles (30) are shown as made in four sections (31), (32), (33) and (34) connected together by means of three couplings (35) and (36), the couplings (35) being of the flexible type to allow for expansion of the spindles. The latter are mounted in anti-friction bearings (37) secured to the casings (38) surrounding the worm wheel and worm. The casings may be secured to the bearings supporting the rolls and may be supplied with lubricant from these bearings. The lowermost bearings (39) may be of the double conical roller type mounted on a reduced portion (40) of the spindle, with the smaller race (41) held in place by means of the nut (42) engaging with the threaded portion (43) of the spindle. The upper races (42a) may be mounted in anti-friction bearing housings (44) and held in place by the caps (45) secured to the housings and the casings and adapted to form a seal to prevent leakage of oil.

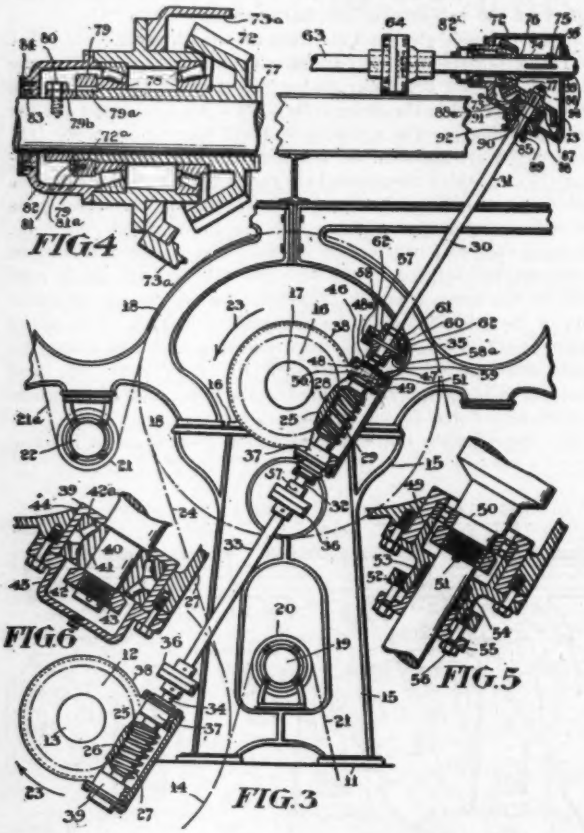


FIG.4

FIG.6

FIG.5

FIG.3

The uppermost anti-friction bearings of each casing are held in place by means of the glands (46) which are provided with recesses (47) for sealing rings or asbestos packing (48), which is held in the recesses by the plates (48a) secured to the gland. Nuts (49) hold the bearings against shoulders (50) formed in the spindles and cotters (51) are provided to prevent movement of the nuts. The lower portions of the upper casings are provided with double glands, one portion (52) of each gland holding the anti-friction bearing in position and provided with recesses (53) for a sealing medium such as the asbestos rings (54), which are held in position by the portion (55) which is adjustably secured to the portion (52) by means of the studs (56). The couplings (35) and (36) are secured to the spindles by means of cotters (57). To allow for expansion, one half (58) of each coupling (35) is provided with outwardly projecting studs (58a) secured thereto by means of the nuts (59). The studs project into openings (60) formed in the other half (61) of the coupling. These openings may be made larger in diameter than the projecting portion of the studs, and the space between them is then filled with a number of resilient washers (62) made of leather or such like material. The ends of the sections of the spindles may be spaced from one another and the adjacent faces of the couplings may also be spaced from one another to allow for longitudinal expansion of the spindle sections.

The main driving shaft (63), which is mounted above the level of the upper surfaces of the rolls, is made up of a number of sections, joined together by means of couplings (64) such as are shown in Figure 7, each section being provided with means to drive one of the roll-driving spindles (30). One half (65) of each of the couplings is secured to one end of each of the sections by means of the key (66) while the other half (67) is secured to the end of the adjacent section by means of the key (68). To hold the key (68) in position the half (67) of the couplings is recessed to receive a nut (69), which is held in position on a reduced end portion (70) of each section by means of the cotter pin (71).

The driving shaft is horizontal and the roll-driving spindles are at an angle to the main driving shaft and project down from it. The driving connection between the shafts comprises the bevel gears (72) and (73) secured to the driving shaft (63) and spindles (30) respectively. Both gears are enclosed in the casings (73a). Keyed to each of the sections of the main driving shaft and within the casings are the sleeves (74) held in place by means of the screws (75). Each sleeve is provided with clutch teeth (76) at one end adapted to engage with clutch teeth formed in perpendicular faces (77) of the bevel wheels (72). The bevel wheels (72) are mounted on anti-friction bearings (78) of the double conical roller type to take up any side thrust which occurs during the working of the machine. The anti-friction bearings are held in place by threaded nuts (79) which engage the screw threads formed in the bosses (72a) of the bevel wheels and the nuts are held from rotation on the bevel wheels by means of the keys (79a) and locked thereon by means of the screws (81), which hold locking pawls (81a) in contact with the threads to prevent movement of the nut.

At one portion only in the length of the main driving shaft a collar (79b) is provided to centralize the shaft and to allow expansion of the same towards both ends of the machine. The collar (79b) is secured to the main driving shaft by means of the screws (80). Sealing caps (82) may be provided at the end of each bearing, these caps being adapted to hold the roller races in position. The caps are each provided with a recess for sealing rings (83), which are held in place by the plates (84), which are suitably secured to the caps.

The bevel wheels (73) are secured by keys (85) and are held in place by means of the nuts (86) on the end of the shaft (30). The faces (87) of the bevel wheels (73) butt against the anti-friction bearings (88a), which are also of the double conical roller type, to take up the end thrust whic hoccurs in the bevel drives. The anti-friction bearings are held in place by means of the double glands, one portion (88) of each of which holds the adjacent anti-friction bearing in position, while the other portion (89) holds the sealing rings (90) in the recesses (91)

formed in the portion (88) and surrounding the shaft (30). The portions (89) are adjustably secured to the portions (88) by means of the studs (92), while the portion (88) is secured to the casing. Packing rings (93) are also placed in the recesses (94) formed in the casing to seal it. Ridges (95) are formed in the sleeve to assist in circulating the lubricant in the casings.

This construction provides the following advantages: (1) It allows easy access to all parts of the machine for repairs, oiling and adjustment. (2) It is easy to erect and ensures an even drive of the machine throughout its entire length. (3) Allowance is made for the expansion of the working parts of the machine. (4) Means are provided to absorb any end thrust which may be exerted by the gear transmitting the driving power. (5) The gears are totally enclosed and run in a perfect circulation of lubricant. (6) There is practically no end thrust due to the horizontal forces exerted by the worm wheels on the worms, as one worm of each spindle is made right-handed while the other is left-handed.

(7) The number of longitudinal driving shafts is reduced to a minimum.—A.P.-C.

Built-Up Fiber Board Tester

In the manufacture of fiber board containers the fiber board is marked by scoring or creasings to make the edges of the completed box. These scored edges are the weakest part of practically all properly sealed fiber boxes, and it is at these edges that the boxes are likely to fail in service. Yet this weakness is not taken into account in the standard methods of testing fiber board which are the basis for specifications in the buying and selling of fiber boxes. While these standard tests are valuable for determining certain qualities of the board from which the boxes are made, they cannot be used to predetermine with accuracy the relative serviceability of different boxes, especially when different lots of boxes are made from the same quality of board, but scored differently.

T. A. Carlson, of the Forest Products Laboratory at Madison, Wis., has invented an instrument by means of which the relative serviceability of different fiber boxes can be measured and the relative values of different kinds of scores or creases determind. On December 28, 1926, he was granted U. S. patent No. 1,612,415, which he has assigned to the citizens of the United States, who may use it without payment of any royalty thereon.

He has found that an indication of the amount of rough handling which a fiber box will withstand may be obtained by applying certain mechanical tests to a specimen which may include a section of one of the scored edges of the box, which are ordinarily subjected to the hardest stresses or which tend to fail first in actual usage. The apparatus for carrying out the test involves means for applying a combined action of tension, tearing and repeated bending to a specimen while it is bent over and drawn firmly against a sloping edge. In the case of a scored specimen representing material from an edge of a fiber box, the specimen may be bent initially at an angle of approximately 90 degrees, the bend being parallel to and at the score, so that the score may be in contact with the sloping edge during the test. The number of times that the specimen is bent through a predetermined angle and the maximum tension applied before the specimen is torn apart is taken as an indication of the amount of rough handling which the box will withstand.

Fig. 1 is a view in front elevation of the instrument;

Fig. 2 is a vertical cross-sectional view taken on line 2-2 of Figure 1;

Fig. 3 is a cross-sectional view of the oscillating arm taken on line 3-3 of Fig. 2, and

Fig. 4 is a cross-sectional view of the oscillating arm taken on line 4-4 of Fig. 2.

(1) is a supporting base on which is mounted a pedestal (2). The upper part of the pedestal (2) is provided with a horizontal ledge (3) which is an integral part of the pedestal (2) and with an apertured boss (4). Through the aperture or opening extends a bolt (4a), which can rotate in the opening but is rigidly secured to oscillatable arm (5). On the horizontal ledge (3) is mounted the movable jaw (20), which co-operates with the ledge (3) to form a stationary clamp. This clamp is similar in principle to a leverage system in which the force is applied through the thumbscrew (20a), the fulcrum is represented by the adjusting screw (20b), which also serves to adjust the clamp for specimens of different thicknesses, and the resistance is afforded by the gripping surface (20c) which holds the test specimen. The thumbscrew (20a) bears on the top surface of clamp (20) and has a reduced threaded portion which passes loosely through the hole in clamp (20) and screws into a correspondingly tapped hole in ledge (3). The arm (5), through its pivotal connection (4a), may be oscillated about an axis concentric with the boss (4) and the arm is provided midway of its length with a forwardly-directed apertured projection (18) and at its lower end with a similarly apertured ledge (5b), the two openings

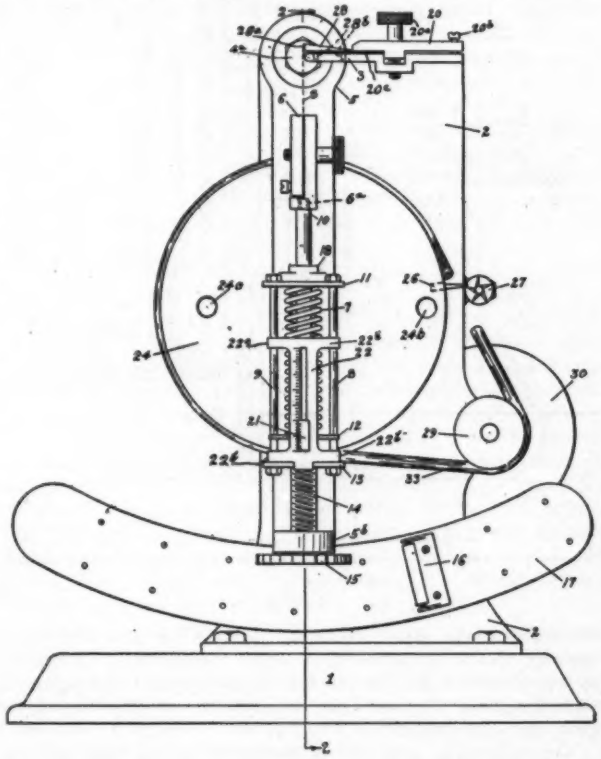


Fig-1

being in alignment and the hole of the ledge being threaded to receive an adjusting screw (14). Slidably mounted in the hole of the projection (18) is the rod (10) having a head (10a) at its lower end and carrying at its upper end the movable clamp (6), generally similar in construction to the stationary clamp, and having a tapped hole (6a) to receive the threaded upper end of rod (10). The screw (14) has a reduced stud (14d) at its upper end, upon which is mounted collar (19) held in place by a pin (34); and on the stud, between the collar and the shoulder at the base of the stud, is mounted an elongated plate (13) having perforations near each end, as shown in Fig. 4, and notches (13a) in the edge that is adjacent to the arm (5). These notches

are adapted to co-operate with longitudinal ribs (5a) on the arm to prevent the plate from turning with the screw (14). Bolts (8) and (9) extend upwards through the end perforations respectively of the plate (13), their heads bearing against the lower side of the plate. The threaded upper ends of the bolts extend through apertures in a plate (11), above which they are provided with nuts, the bolt holes in the plates (13) and (11) being correspondingly spaced and plate 11) having a central hole through which loosely passes the rod (10). Resting against the head (10a) in the lower end of the rod is a plate (12) having a central square hole to receive a correspondingly square portion (10b) of the rod, whereby the latter is held against turning with

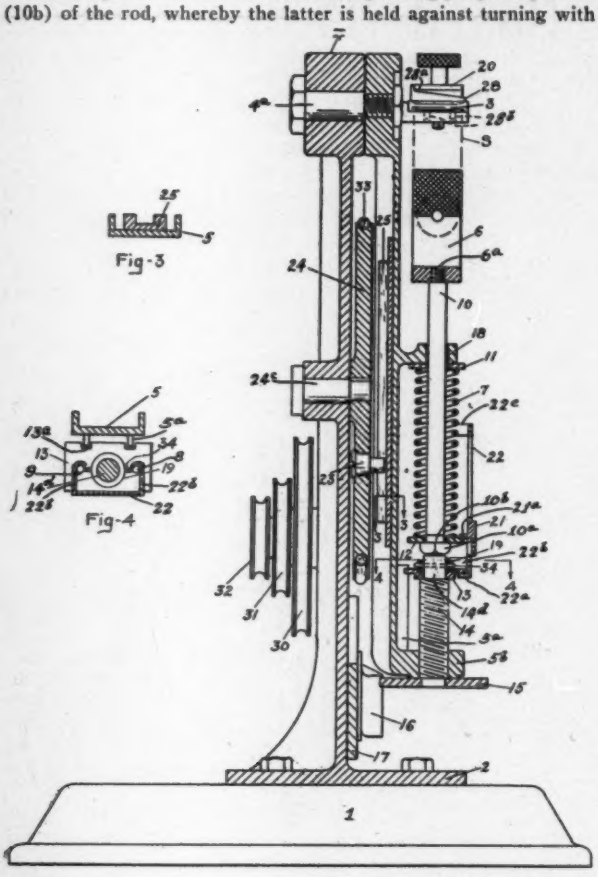


Fig-3

Fig-4

Fig-2

reference to the plate. Near the ends of the plate are holes through which the bolts (8) and (9) loosely pass. A helical spring (7) surrounds the rod (10) with its ends in engagement with the plates (11) and (12), respectively, whereby it tends to push the plates apart.

The oscillating arm (5) is driven by a pin (23), Fig. 2, mounted in one of the openings (24a), (24b), etc., provided in the pulley (24), which in turn is secured to a pintle (24c) pivotally mounted in the pedestal (2). One end of the driving pin (23) slides in a slotted guide (25) secured to the back of the oscillating arm (5). This slotted guide (25) and the oscillating arm (5) can be made to oscillate through any one of different angles simply by screwing the driving pin (23) into the proper one of the tapped holes (24a), (24b), etc., provided in the pulley (24). Correspondingly, spaced pairs of tapped holes are provided in the sector (17) so that different numbers of pawls (16) may be used.

On the horizontal ledge (3) is mounted as the lower extended jaw of the stationary clamp (20) a plate (28) detachably secured in place by means of its pegs (28b), which fit snugly into corresponding holes in ledge (3). The edge (28a) of this plate (28), about which the test specimen is bent, is inclined, as shown in Fig. 2, so that its action on the specimen is one of tearing in addition to tensioning and bending. Since the plate (28) is detachable, different plates can be substituted, so that the specimen can be subjected to bending and tearing actions of varying relative intensity.

The specimen to be tested must be bent initially through an angle of about 90 degrees before being mounted in the machine. As shown in Fig 1, one end of the specimen (S) is fastened to the stationary clamp (20) and the other in the movable clamp (6). When it is intended to test the scored or creased portion of fiber board or of a fiber box, the specimen should be bent at the score and is mounted in the machine with the score at the sloping edge (28a) of the plate (28).

In order to obtain a fair comparison between different specimens it is best to subject all the specimens to the same initial tension before the testing machine is set in motion. This may be accomplished after the specimen is fastened in the clamps by turning the ratchet (15) until the desired amount of tension is indicated. The tension applied to the specimen is registered by means of a calibrated vernier (21) sliding in a slot in the frame (22). This frame is fastened to and is made to move with the plate (13) by means of its lip (22a), which extends underneath the plate (13), as shown in Fig. 2, and by the extension of its two arms (22b) which rest on the upper surface of the plate; and the frame (22) is also held in place by the arms (22b) and (22c) which terminate in loops encircling the bolts (8) and (9) in the manner shown in Fig. 4. As the spring (7) is compressed, the calibrated vernier (21) is moved relatively to the frame (22) by virtue of the contact of its projecting arm (21a) with the upper surface of the plate (12), and when the specimen fails, releasing the compression in the spring (7), the calibrated vernier (21) remains at the point on the graduated scale marking the maximum tension applied to the test specimen.

In order to register the number of bends to which a specimen is subjected, a counter (27) is mounted on the pedestal (2). This counter is actuated by a finger (26) attached to the pulley (24), so that each revolution, corresponding to one complete oscillation of the specimen, is recorded.

The pulley (24) is connected to the source of power through the belt (33) driven by a pulley (29), which in turn is driven by one of the intermediate pulleys (30), (31), or (32), which serve to vary the speed of the operation.—A. P.-C.

Water Resistance of Papers

WASSERDICHTMACHEN VON PAPIER. Hans Wandrowsky. 2nd Edition. Verlag der Papier-Zeitung, Carl Hofmann, GmbH., Berlin SW 11. 54 pp. 1927. Price, $1.50.

The first edition of this little work was published in 1915; the present edition covers the literature and patents from 1915 to the present time. Water resistant papers may be prepared by filling the pores of the paper with paraffin, waxes, resins or oxidizing oils; also by saturating the paper with aluminum acetate, adhesives (such as animal glue) made insoluble by alum, chrome alum, etc., by the action of cellulose solvents (such as ammoniacal copper oxide) or by the use of metallic oxides and insoluble metallic soaps. Various methods are described for testing the water resistance of papers. Seventeen pages are given to a review of the literature and patents relating to methods and machines for treating papers so as to render it water resistant. A subject and author index completes the book.—C. J. West.

Paper Index Number Higher

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 11, 1928—The November index for paper production was 102 compared with 100 for October and 123 for November, 1926, taking 1919 at 100 per cent according to the Department of Commerce.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

Clarence J. West, Chairman

Beating

Beating Engine. J. T. Murphy and E. J. Raney assignors to Chicago Mill and Lumber Co. U. S. pat. 1,614,486, Jan. 18, 1927. The invention relates to a continuous combined breaker and refining beater and provides a breaker roll and one or more beating rolls in the beater trough, together with a number of devices for removing the fully prepared stock continuously as it is formed, one such device being preferably placed in advance of each beater roll. The pulp removing devices consist of rotating screen drums along the lines of U. S. pat. 1,310,628, but of improved construction. Provision is made to direct the stock to the breaker roll by spraying it with jets of water just before it comes in contact with the roll. The roll journals are mounted in levers, pivoted at one end, while through the other end pass screws operable by hand wheels and bearing upon suitable pedestals; so that any one of the rolls can be raised or lowered by turning the hand wheels in opposite directions. Simple means are provided for raising or lowering the pulp removing devices, and a simple bedplate construction is specified and described. A.P.-C.

Beating Engine. L. Schlick. U. S. pat. 1,623,364, Apr. 5, 1927. For providing a variable discharge from the beater roll, the bedplate is given an extension, and behind the upper edge of the latter descends the lower edge of a double plate whose other edge passes behind a lip rising from a backfall board, the plate composing the backfall and the topmost portion thereof being the crest of the backfall. This causes the pulp and water from the beater roll to rise to a considerable height before descending to the backfall board and discharging into the channel about the midfeather. The bedplate crest is vertically adjustable. The outflowing stock is reduced to a lower discharge level by means of a vertical gate adjustably supported by the beater hood. The lower edge of the gate being below the level of the top of the backfall. This materially increases the velocity of the outflow and thereby decreases the settling of pulp in the trough. The hood is pivotally supported and angularly adjustable, and a deflector depending from it close to the fly-bars of the beater roll prevents any lumps of the pulp from passing over the roll. Means are provided so that the hood and deflector rise or fall as the beater roll is raised or lowered. To speed up circulation the trough is narrowed between the ends of the midfeather and the ends of the tub, where the pulp is apt to settle and reduce the rate of flow. The trough is also narrowed just in front of the roll so that the current of stock will meet the beater roll and bedplate centrally thereof and with greater velocity. Instead of loading the roll bearings to increase the pressure of the roll on the bedplate, suitable circular lead or concrete weights are placed about the shaft in the center of the roll, and in order to facilitate their application and removal the roll is split longitudinally. The flybars are preferably formed as parts of plates which are adapted to slide into dove-tail seats and to be held against longitudinal displacement by means of bolts passing through ears. The flybars are preferably bent so that the two halves of each compose an oblique angle, and are disposed so that the central bends reach the bed plate before their ends thereby facilitating the expulsion of the entrained air from between the flybars. A.J.-C.

Beater-Roll Raiser. H. C. Claflin. U. S. pat. 1,614,826, Jan. 18, 1927. In order that the beater roll may be raised or lowered, each lighter bar at one end is provided with a suitable fulcrum and at its other end is attached to the frame by means of a screw which passes through a rotatable nut and which is pivotally secured to the lighter bar at its lower end. The nuts are held against longitudinal movement so that their rotation will either raise or lower the screws and consequently also the ends of the lighter bars. The periphery of the nuts are formed with worm wheel teeth meshing with a worm which can be driven from the beater-roll shaft. The upper end of one of the screws is provided with a pointer cooperating with a suitably graduated bar, so as to indicate the elevation of the beater roll or lighter bars. A.P.-C.

Method of and Apparatus for Working Paper Stock. A. J. Haug. U. S. pat. 1,623,676, April 5, 1927. This is an improvement on U. S. pats. 1,302,469 of April 29, 1919, 1,443,410 of Jan. 30, 1923 and 1,518,922 of Dec. 9, 1924. The stock is worked up by passing through a cylindrical casing with a heavy central roll and a number of auxiliary rolls (preferably 4), means being provided for positively feeding the stock through the casing. The improvement consists essentially in providing means for positively rotating the auxiliary rolls independently of the central roll, so that they may have either true rolling contact with the casing, or else a forward or backward slip. The auxiliary rolls also turn all together about the main axis of the casing, and the pressure exerted by these rolls against the casing is due to centrifugal force and can therefore be varied by changing the speed of rotation of the rolls about the main axis. A.P.-C.

Continuous Stock Beater. C. W. Shartle. U. S. pat. 1,624,875, Apr. 12, 1927. The beater is designed so as to combine into a single apparatus the functions of stock breaker, settling trough, screen and finishing beater for the treatment of mixed waste paper stock. The midfeather is hollow, and one wall of the midfeather is perforated to allow the sufficiently reduced stock to pass through and be withdrawn from the beater. The ends of the beater trough are similarly perforated to allow the finished stock to pass into stock chambers, from which they overflow over an adjustable weir. The midfeather wall and ends of the trough thus act as a screen. In the bottom of the beater trough are provided a number of slots and of perforations through which pass heavy impurities, such as sand, fragments of rock and glass, pieces of metal, etc., into catch pans, from which they are removed through suitable valves. A.P.-C.

Apparatus for Batch Refining by Means of a Continuous Refiner. E. Ryberg. Fr. pat. 621,606, June 12, 1926. A continuous refiner is connected at both ends to a stock reservoir, from which it is fed and to which it delivers its stock, so that the stock can be refined or beaten to any desired degree by repeatedly passing through the refiner. A.P.-C.

Technic of Using Glue in the Beater. George K. Hammill. Paper Mill 50, No. 28, 4, 46 (July 9, 1927). Laboratory and semi-commercial tests carried out at the U. S. Bureau of Standards led to the following conclusions: (1) the use of special reagents such as aluminum formate offers no advantage over alum in jelling the glue. (2) Chrome alum forms the most insoluble and water resistant gel of any of the reagents used. (3) Whether the glue is added to the beater as gel or solution, the active acidity or hydrogen-ion concentration of the beater water governs the behavior of the glue, optimum retention and minimum foaming being obtained with a pH value of about 4.5, which is very near the isoelectric point of pure gelatin and commercial glues. A.P.-C.

Recent Bleaching Processes for Pulp. J. Funcke. Papierfabr. 25, 221-228 (Apr. 10, 1927). A review of American patents covering processes for bleaching pulp fibers during the last ten years. Recent studies on the bleaching of pulp by American investigators, are also reviewed. J.L.P.

Beating and Blending of Pulps. Papyro. Papeterie 49, 394,-397 (May 10); 445-449 (May 25, 1927). A discussion of the beating qualities of the various kinds and grades of stock, and of their blending for the production of different grades of paper. A.P.-C.

Rod Mill in the Preparation of Wood Pulp. E. F. Stemmler. Paper Trade J. 84, No. 22, 86-87 (June 2, 1927). Brief description of the rod mill as used for beating and hydrating pulp and of installations made in paper mills to date. A.P.-C.

Degree of Hydration. Harry Williamson. Paper Mill 50, No. 22, 28, 30, 67-68 (May 28, 1927). Paper Ind. 9, 415-418 (June 1927); Paper Trade J. 84, No. 22, 83-85 (June 2, 1927); Pulp and Paper 25, 731-733 (June 9, 1927). A discussion of the practical results of hydration, or lack of it, in the running of the fourdrinier machine, dealing with the degree to which the development of a state of hydration is justified, the degree of hydration that is necessary to the successful operation of the fourdrinier machine, and relation between hydration and strength in obtaining strength in the paper. A.P.-C.

Storage of Beaten Stock. W. Schmid. Papierfabr. 25, 20-22 (Jan. 9, 1927). Hygroscopic neutral substances may be added to paper stock in a kollergang to prevent the resulting disintegrated stock from becoming hard on storage. J.L.P.

Foaming of Paper Stock. H. Roschier. Papers Och Travarutidskrift for Finland, No. 20 (1926); Papierfabr. 25, 211-213 (Apr. 3, 1927). The theory of foam formation is discussed in an address. A pure sodium abietate solution, to which alum has been added, does not yield any foam at pH 4.6-5.8. At this acidity all of the abietic acid is in the form of the aluminum salt, which is difficultly soluble in water. Alum does not influence the surface tension of water. Commercial rosin always yields a foam at the above acidity, which increases with increase in hydrogen-ion concentration. With the addition of glue or gelatin as a protective colloid the foam is at its minimum at pH 4.5-5.5, even in the presence of a 0.09% solution of gelatine. Sources of foam in paper stock are: fillers, sizing agents, improperly washed pulp containing bleach residues, unbleached pulp containing traces of waste sulphite liquor, alum after hydrolysis, etc. Frequently the addition of another colloidal substance to a foaming solution results in the decrease of foam owing to the fact that the original foam former is displaced from the surface layer of the solution. J.L.P.

Mechanical Pulp

Regulator for Wood Grinders. W. Stiel assignor to Westinghouse Electric and Mfg. Co. U. S. pat. 1,614,162, Jan. 11, 1927. In order to keep the load reasonably constant on the main motor driving two or more grinders and at the same time distribute the load substantially uniformly between the several grinders, the feed motor for each grinder is provided with a regulating device which is controlled on the one hand by the load on the main driving motor and on the other hand by the load of the other feed motors. In this way it is possible to use as feed motors ordinary regulable motors, the regulation of which requires small currents, so that the plant is not rendered substantially more expensive by the provision of the regulation apparatus.—A.P.-C.

Regulator System for Pulp Wood Grinders. W. M. Bradshaw and W. S. Mylius assignors to Westinghouse Electric & Mfg. Co. U. S. pat. 1,622,624, Mar. 29, 1927. The outer end of the valve stem of the regulator for regulatng the pressure on a water-wheel-driven grinder is pivotally connected to one end of a floating lever the other end of which is pivotally connected to the rod of a piston working in a cylinder directly connected to the pressure fluid pipe at a point intermediate between the regulating valve and the grinder pocket. At a point between its ends the floating lever is connected to another piston. Fluid under pressure is admitted into the cylinder of this second piston by means of a centrifugal pump, which is driven from the shaft of the grinder. The speed of the pump depends directly on the speed of the grinder, which in turn depends on the load. Any increase in the load reduces the speed of the grinder and in turn that of the pump, which acts to correspondingly shut the regulator valve reducing the pressure in the pocket and consequently also the load on the grinder. Conversely, when the load on the grinder is reduced, the regulator valve is automatically opened, thereby increasing the pressure in the pockets. The device is free from "hunting" action.—A.P.-C.

Pulp Wood Grinder. J. D. Ullgren assignor to Aktiebolaget Karlstads Mekaniska Varstad. U. S. pat. 1,625,015, Apr. 26, 1927. The invention is chiefly characterised by the fact that the magazine of the grinder is movably connected with the stationary frame and is actuated by springs, weights, or other means, which tend to move the magazine and the wood therein towards the stone, there being also provided in the magazine a pressure cylinder with a piston, or other means, acting between the magazine and the wood to feed the latter through the magazine towards the stone. When the pressure on the wood is exerted by means of the piston, it will at the same time move the magazine away from the stone, until such pressure is balanced by the springs, weights, or the like, which tend to move the magazine towards the stone. The magazine may therefore be moved towards the stone by the springs, etc., and force the wood against the stone when the pressure means normally feeding the wood forward in the magazine is retracted to allow more wood to be introduced into the magazine.—A.P.-C.

Article of Sillimanite-Bonded Granular Material, and Method of Making the Same, for Artificial Grinder Stones. M. C. Booze assignor to Norton Co., U. S. pat. 1,616,525, Feb. 8, 1927. The principal objects of the invention are to use synthetic sillimanite as the main ingredient of a bond for granular super-refractory material, such as crystalline alumina, and to provide a composition and a method of manufacture which will result in the formation of synthetic sillimanite in situ and in intimate contact with the refractory grains, and particularly effect a substantially complete conversion of the initial bonding ingredients to synthetic sillimanite. The crystalline alumina granules may be bonded with a mixture of 7 parts of alumina (containing approximately 99% of aluminum oxide, preferably in the finely divided condition) and a solution of dextrin or other temporary binding material to give a fluid consistency with 15 parts of kaolin (such as Florida kaolin); and the bond thus obtained is intimately mixed with about 78 parts of crystalline alumina, graded so that 40 parts are size 14-mesh, 25 parts 46-mesh and 13 parts 90-mesh or finer. The whole is thoroughly mixed, water being added to obtain the required plasticity, then moulded to the desired shape, allowed to dry thoroughly, and finally fired at a temperature equivalent to Segey cone No. 16 in accordance with the usual ceramic procedure. The ware thus produced consists essentially of crystalline alumina grains held together by the bonding material, a large portion of which has been converted into synthetic sillimanite, the remainder, if any fluxes are present, forming a vitrified or glossy matrix.—A.P.-C.

Highly Acid Resistant Material in Pulp Manufacture. E. Belani Papierfabr. 25, 195-196 (Mar. 27, 1927). Descriptive of an acid resisting material made of chamottee of a very dense body and a [illegible] glaze. 1 cu. m. of this stone weighs about 2000 kg. and 15.[illegible] kg. acid restraint mortar are required per 100 kg. stone.—J.L.P.

Grinder Shaft. F. H. Heuring. U. S. pat. 1,623,116, Apr. 5, 1927. The shaft is made with an annular groove and an annular abutment shoulder some distance from the groove. Threaded sleeves are keyed on the shaft between the groove and shoulder and at some distance from them. The stone is positioned between the sleeves and is held in position by clamping disks threaded on the sleeves. A collar of greater diameter than the shaft is keyed in the groove to form a second annular abutment, and soft metal washers are inserted between the shoulder and the collar and the adjacent sleeves—A.P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

The Revenue Bill of 1928*

December 7, 1927—Committed to the Committee of the Whole House on the State of the Union and Ordered To Be Printed

Mr. Green of Iowa, from the Committee on Ways and Means, submitted the following

Report

The Committee on Ways and Means, to which was referred the bill (H.R.1) to reduce and equalize taxation, provide revenue, and for other purposes, having had the same under consideration, reports it back to the House without amendment and recommends that the bill do pass.

General Discussion

We are again in the happy position of having a surplus of revenue in the Treasury which is being applied on the national debt, but which enables us to reduce taxation. In anticipation of this situation, an understanding was reached between the representatives of the two great parties during the 69th Congress that the Committee on Ways and Means would meet in advance of the session now pending and prepare a tax reduction measure to be presented to the House when Congress convened. While this understanding failed to be enacted into law, it was carried out by the members-elect of the Committee.

Pursuant to notice given in the press, hearings were had in the same manner as in the preceding revenue bill, and an opportunity given to all persons desiring to be heard to present their views to the Committee. Requests were made for reductions aggregating more than $500,000,000, and a large number of amendments were proposed to administrative provisions of the present law.

The present law contained a provision for the creation of a Joint Committee of the House and Senate on Internal Revenue Taxation. One of the duties of this Committee was to consider measures for the simplification of the Revenue Act. This committee was duly organized and for more than a year its staff, assisted by the Legislative Council of House and Senate, Treasury experts, and by a voluntary committee of distinguished lawyers, experts, and economists, who served without compensation, have been at work devising methods simplifying the income tax. While the work of the Joint Committee is far from complete, an elaborate report, with certain recommendations, was submitted to the Committee on Ways and Means and to the Finance Commitee of the Senate. These recommendations, together with those made during the hearings were carefully considered by your Committee. Not all the recommendations of the Joint Committee were approved—in fact, your Committee did not have time to properly consider all of them. But the greater part of the recommendations of the Joint Committee were adopted and are part of the bill, among which is the rearrangement of the law.

It was obviously impossible to make all of the reductions proposed. The plan adopted in the bill and approved by the majority of your committee is believed to distribute the reduction as widely as possible, apportioning it among the taxpayers where the need seemed greatest, and at the same time endeavoring to make it reasonably certain that when the law went into full force and effect, it would not cause a deficit in the Treasury. In this connection it should be borne in mind, that the full effects of the law as proposed to be modified will not be felt until the fiscal year 1930. This fiscal year, ending June 30, 1928, will show a large surplus, as less than half the reductions proposed will apply to it, and the Treasury is likely to receive some large payments from railroads. Our concern is for the future. The majority of the committee are opposed to any plan that would produce a deficit. In this connection it should be noted that the estimates of surpluses for future years, on the basis of the present law, takes no account of expenditures which may be made in the future but which are above the sums appropriated in recent years, such as those for floor control, agricultural relief, additions to the Navy, public buildings, Boulder Dam, etc. A margin must be left for these items, some of which are reasonably certain to be adopted.

Reductions Proposed

The committee gave extensive and detailed consideration to the existing taxes to determine where reductions should be made and in what amounts. As a result of the action of the committee, the total loss in revenue carried under the bill is $232,735,000. The details are as follows:—

ESTIMATED LOSS IN REVENUE

(Changes proposed by the Revenue Act of 1928)

Reductions:			
Corporations—			
Reduction in rate of tax—			
Estimated revenue under present law: 13½% on all corporations except insurance; 12½% on these corporations		$1,120,000,000	
Estimated revenue as proposed:			
Insurance	$18,400,000		
Other	937,000,000	955,400,000	
Loss			$164,600,000
Increased credit (from $2,000 to $3,000 on corporations with net income of $25,000 or less)			12,000,000

* From Union Calendar No. 3, House of Representatives, Report No. 2.

Total loss, corporations		$176,600,000
Admissions tax (increased exemption to $1.00 admission)		8,000,000
Dues tax (reduced from 10 to 5 per cent)		5,000,000
Automobile tax (reduced from 3 to 1½ per cent)		33,000,000
Cereal beverage tax (repealed)		185,000
Wine taxes (reduced rates)		930,000
Stamp taxes—		
Sale or transfer of capital stock (reduced from 2c to 1c)	8,800,000	
Sales of produce on exchanges (repealed)	3,000,000	11,800,000
Total		235,515,000
Increases:		
Withholding of tax at source on tax free covenant bonds (nonresident aliens and foreign corporations)	2,000,000	
Prize fights (tax of 25 per cent on admissions of $5.00 and over)	750,000	
Foreign-built boats (increased annual tax on boats contracted for after Dec. 1, 1927)	30,000	
Total		2,780,000
Net loss in revenue		232,735,000

As before stated less than half of this loss will be felt in the fiscal year of 1928, ending June 30 of that year. Consequently, there will be a large surplus for that fiscal year which under the law will be applied on the public debt.

Corporation Taxes

The corporation tax has not been reduced since the War, while nearly all other taxes have been. The corporation tax was established before the income tax went into effect under the 16th Amendment to the Constitution under the theory that corporations enjoyed special privileges and might properly be taxed therefor. At present, however, it is generally conceded that the tax on corporations is disproportionate and that they are especially entitled to some reduction. Whether the reduction of the rate to 11½ per cent affords adequate relief the Committee did not decide, but it found that this was all that could be given at this time with the surplus available for tax reduction and at the same time afford a measure of relief to the other taxpayers.

The small corporations are especially burdened by this tax. Many have dissolved and are doing business as partnerships by reason of which as individuals they pay a tax very much lower. The Committee proposes to give the small corporations with incomes not in excess of $25,000 additional relief by raising the exemption from $2,000 to $3,000. This exemption should not be compared with the individual exemptions as it is based on altogether different reasons; and besides this, the stockholders still have their individual exemptions.

The majority of the Committee considered that this reduction of rates given to corporations should apply in 1928 to the income of 1927. This rule was observed in the reductions on individual incomes by the present law and there are the same reasons for applying it in the proposed bill. It is claimed by some that the taxes on corporations on incomes of 1927 have already been passed on to the consumer in the prices fixed, but the returns show that a very considerable proportion of sales of corporations were made at small or no profit or even at a loss, which would not occur if the corporations were able to fix the prices on their products. Economists generally agree that the tax can not be passed on except by a monopoly, and that other than in exceptional cases, corporations sell for the highest price consistent with the broadest market that can be obtained. This view has been concurred in by an English commission which recently investigated the subject and also by a special board making a similar investigation in this country.

These adjustments, as stated above, will cause a loss to the Treasury of $176,600,000.

Miscellaneous Taxes

The Committee reduced the taxes on admissions and dues, automobiles and motorcycles, and wines used for certain purposes. The stamp tax on sales of produce on exchange, which has always operated as a tax on agricultural products, has been repealed, and the tax on sales or transfers of capital stock has been cut in half. The tax of one-tenth of a cent per gallon on cereal beverages has also been repealed. It was felt that the reductions made were as large as the remainder of available surplus revenue would justify, and will cost the Treasury the further sum of $60,915,000.

In connection with the reduction of the tax on wines and the repeal of the tax on cereal beverages, it was stated by the Commissioner of Prohibition that the former would not affect, and the latter had been of no useful purpose in, the enforcement of the Prohibition Act.

An amendment to existing law, providing for the retention at he source of the tax on certain kinds of bonds which contain tax free covenants in the case of non-resident and foreign corporations, makes certain the receipt of taxes due and is estimated to save the Treasury $2,000,000. The tax on admissions to prize fights is to be increased to yield $750,000; also, that on foreign built yachts to yield $30,000. Deducting the sum of these amounts from the proposed reductions of $235,515,000, the net loss to the Treasury is estimated to be $232,735,000.

Receipts for 1926 and 1927 Compared with Estimates For 1928 and 1929

For the information of the House, there is given below a table showing the sources of the revenue, the receipts for 1926 and 1927, and the estimates of the Treasury for 1928 and 1929, if the present law were to remain in force. The action of the Committee in making reductions was based upon the receipts and estimates given in the table.

INCOME FOR THE FISCAL YEARS 1926 AND 1927 COMPARED WITH ESTIMATED INCOME FOR 1928 AND 1929

Sources of Income	1926	1927	1928	1929
Corporations	$1,094,980,000	$1,308,013,000	$1,120,000,000	$1,120,000,000
Individuals	879,124,000	911,940,000	765,000,000	765,000,000
Back taxes	[1] 295,000,000	[1] 331,000,000	280,000,000	180,000,000
Estates	116,041,000	100,340,000	80,000,000	65,000,000
Alcoholic spirits	26,436,000	21,195,000	18,000,000	17,000,000
Admissions and dues	34,055,000	28,377,000	28,000,000	28,000,000
Tobacco	370,666,000	376,170,000	400,000,000	420,000,000
Automobiles	113,133,000	66,438,000	60,000,000	65,000,000
Small taxes	.....	.....	345,000	345,000
Stamp taxes, playing cards	54,014,000	37,345,000	39,000,000	39,000,000
Oleomargarine, etc.	3,071,000	3,164,000	3,200,000	3,200,000
Miscellane's taxes	[2] 144,479,892	12,701,000	10,000,000	3,000,000
Total	$2,835,999,892	$2,865,683,000	$2,803,545,000	$2,705,545,000

[1] Back taxes for 1926 and 1927 were not segregated as separate items, but included in the corporation and individual items. But back taxes are segregated in the estimates for 1928 and 1929.

[2] This amount of $144,479,892 includes among other items the following:

Gift tax	$3,175,000
Capital stock tax	97,386,000
Brokers	4,324,000
Other excise taxes	11,938,000

which were either discontinued or included in other items in subsequent years.

Surplus Available for Tax Reduction

The Treasury submitted to the committee, orally and in writing, estimates of receipts and expenditures. It analyzed the surplus remaining in the Treasury at the end of the fiscal years of 1926 and 1927, and the estimated surpluses for the fiscal years 1928 and 1929. Based on the experience of the past and the best forecast it could make for the years 1928 and 1929, it stated that reductions could not safely be made in excess of $225,000,000.

Surpluses are made up of two classes of items: recurrent items, which appear each year, producing volumes of income of comparatively stable amounts; non-recurrent items, producing variable and irregular amounts, which tend gradually to disappear as the sources of such income become exhausted. These non-recurrent items have been an important factor in recent surplus, as the following table indicates:

Fiscal Year	Surplus	Recurrent Income	Irregular or Nonrecurrent Income
1926	$377,000,000	$162,000,000	$215,000,000
1927	635,000,000	221,000,000	414,000,000
1928 (estimated)	455,000,000	137,000,000	318,000,000
1929 (estimated)	274,000,000	199,000,000	75,000,000
1929 estimate on Bureau of the Budget's figures	252,000,000	177,000,000	75,000,000

These irregular and nonrecurring items are estimated to decline $96,000,000 in 1928 over the 1927 receipts, and $243,000,000 in 1929 over estimated receipts for 1928, leaving total receipts from these sources in that year (1929) of only $75,000,000.

The Treasury estimates the total surplus for 1929, at $274,000,000. The Bureau of the Budget, in a more recent estimate, increases the expenditure estimates and indicates that the surplus will be $252,000,000 or $22,000,000 less than the Treasury estimate, and that the surplus exclusive of non-recurrent items, will be $177,000,000.

The Treasury has been receiving large sums from payments of Farm Loan Bonds, from loans advanced to the War Finance Corporation and the railroads, and also from the sale of surplus property. Collections on back taxes have been large, by reason of the fact that some large cases have remained unsettled under the old excess-profits tax law. These payments will either cease entirely or be largely decreased after the fiscal year of 1929.

The Government holds no more farm loan bonds. The War Finance Corporation has been practically liquidated and not more than $6,000,000 can be realized from this source in the future. There will remain after 1929 only $49,000,000 of railroad securities, the value of which is problematical. Surplus property still undisposed of is estimated at $4,000,000. Back tax collections, after 1929, because virtually all the cases under the excess-profits tax years will be closed, will yield only about $50,000,000 per year net, after deducting refunds, but since there will always be collected in any year taxes due in previous years but not then paid, this amount of $50,000,000 may be considered as regular income, since it is based upon continuing sources.

If wisely administered, governments live from regular sources of revenue. The bill proposes a total net reduction of $232,735,000. The estimated surplus for 1929 is $274,000,000, including the irregular items, or $199,000,000 excluding such items. It is apparent, then, that the committee has gone fully as far in tax reduction as ordinary prudence will justify.

Since 1920, surpluses have generally resulted because the reductions in expenditures have exceeded the reductions in receipts under the several revenue acts, and because assets acquired during the war have been gradually disposed of and the money received therefrom covered into the Treasury. In 1925, the expenditures increased and receipts declined, with the result that the surplus in that year was less than half that of the preceding year. In 1927, when the largest surplus occurred, receipts increased and expenditures diminished. There were unusual and non-recurring items in both receipts and expenditures. The disposal of capital assets, the excess of back tax collections over refunds, and other items now rapidly disappearing or of a non-recurrent character account for $414,000,000 of the surplus of $635,000,000. $103,000,000 of this surplus came from sources which are now entirely exhausted. The principal items of the change in 1927 are as follows:—

PRINCIPAL CHANGE IN ORDINARY RECEIPTS AND EXPENDITURES CHARGEABLE AGAINST ORDINARY RECEIPTS IN THE FISCAL YEAR 1927 OVER 1926

(On basis of daily Treasury statements (unrevised))

Receipts—Increases (In millions)		Expenditures — Decreases (In millions)		Expenditures — Increases (In millions)	
Customs	$26	Interest payments	$45	General expenditures	$31
Internal revenue largely income taxes	32	Customs and internal revenue funds	72	Govt. life insurance fund	9
Foreign repayments	11	Postal deficiency	12	Debt retirements — chargeable to ordinary receipts	32
Railroads (primarily securities sold)	53	Civil service retirement fund	11		
Federal farm loan bonds, etc	29	Other items	15		
Miscellaneous (net)	16				

The existence of a surplus does not prove that the government has a continuing revenue in excess of its normal requirements. Estimates for coming years must take into account temporary and non-recurring revenues, the business conditions of the country, the increase of expenditures incident to the growth of the country, and that unexpected demands may be made such as those arising out of the recent floods. The surplus arising from the excess of earnings from recurrent sources over the yearly expenditures forms the real basis of safe and sane tax reduction. In this connection the following table is illuminating:—

PRINCIPAL RECEIPT ITEMS OF A NONRECURRING OR TEMPORARY TYPE INCREASING THE SURPLUS IN THE FISCAL YEARS 1923, 1924, 1925, 1926, 1927, AND 1928 [1]

(In millions)

	1923	1924	1925	1926	1927	1928[1]	1929[1]
Back income and profits tax collections [2]	$300	$300	$276	$295	$331	$280	$180
Less internal revenue refunds	125	127	147	182	117	151	138
Net	175	173	129	113	214	129	42
Railroad securities, less railroad payments	[3]14	58	136	36	89	169	24
Federal farm loan bonds and other minor securities	46	9	19	34	63	1½	5
War Finance Corporation assets	109	52	43	19	27	....	....
Capital stock tax	....	....	....	....	8	....	....
Sale of surplus war supplies	82	44	16	13	8	5½	4
Navy oil judgment	....	....	....	....	[4]5	13	....
Total	398	336	343	215	414	318	75
Surplus	309	505	250	377	635	455	274
Surplus exclusive of above net receipts	....	169	....	162	221	137	199
Deficit exclusive of above net receipts	89	....	93	....	....	....	....

[1] Estimated.
[2] Back income tax collections for fiscal years 1923 and 1924 are best available estimates. Figures of actual collections were not kept separate for those years.
[3] Excess payments.
[4] Exclusive of amount paid in Liberty bonds aggregating $5,500,000 principal amount.

From the above table it appears that in the year 1923, the reduction in taxes was $89,000,000 in excess of regular receipts, and in 1925 such excess was $93,000,000. The irregular revenues prevented a deficit. Business expansion provided a growing taxable income. These unusual sources of revenue are close to the vanishing point. Business expansion is assured only to the extent of the normal growth of the country.

The following table compares the estimates of receipts for the fiscal year 1927 with the actual collections:

COMPARISON OF ESTIMATES WITH COLLECTIONS FOR THE FISCAL YEAR 1927

(Estimates made October, 1926)

Item	Estimates	Collections	Overestimate	Underestimate
Corporation tax	$1,120,000,000	$1,125,000,000	.....	$ 5,000,000
Miscellaneous revenue	619,000,000	646,000,000	.....	27,000,000
Individual income	820,000,000	763,000,000	$ 57,000,000	.....
Back tax collections	250,000,000	331,000,000	.....	81,000,000
Total	*2,809,000,000	2,865,000,000	57,000,000	113,000,000

* Making the net overestimate $56,000,000 in internal revenue collections.

This table shows that the corporation tax was underestimated only $5,000,000, while the collections from individual income taxes were overestimated $57,000,000. The miscellaneous revenue was underestimated by $27,000,000. This was largely caused by the greatly increased consumption of cigarettes and is not likely to be repeated. There was also about $9,000,000 collected on late returns from the capital stock tax, which has been repealed.

The back tax collections were underestimated $81,000,000. This was caused by a special drive made by the Treasury. It has heretofore been shown in the report that the receipts from back taxes from now on will greatly decrease. The whole matter may be summed up by saying that the sources of revenue have now reached a normal condition and that estimates can be made with approximate accuracy, and reductions can be properly made only in accordance with these estimates.

E. F. Woodhead Plant Burned

NORRISTOWN, Pa., January 3, 1928.—Fire swept the plant of the E. F. Woodhead Company, manufacturers of paper towels and toilet papers Sunday evening of last week. The destroyed structure was 200 feet long by 40 feet wide.

The plant manager stated the establishment would be in operation again by the middle of January. Equipment is being rushed out for us and sources of supplies are holding material for our shipping instructions, therefore our shipping will not be suspended to any great extent.

"Fire originated either in a loaded freight car on our siding or on the platform adjoining and was probably caused by a lighted cigarette as boys were seen loafing on our platform prior to the discovery of the fire."

COST SECTION

The Relation Between Industry and Taxation

By Thomas J. Burke

A very interesting and instructive lecture was given by Prof. T. S. Adams, President of the American Economic Association, at the Engineering Auditorium, New York City, on Thursday, December 8th last, on the above subject.

Among the statements made by Prof. Adams was the statement, that State and Local taxes have increased more than Federal Taxes have decreased since 1921. As regards the controversy between President Coolidge and the U. S. Chamber of Commerce, regarding the proposed cut in Federal Taxes, Prof. Adams said that in his opinion both sides were to some extent at fault, because they depended too much on somewhat loose estimates and budgets. He said that in his opinion, a good deal could be said for each side, but stressed the fact, that taxpayers were certainly in order in pressing for a reduction, inasmuch as expenditures generally *decreased* as taxpayers *increased* their opposition to high taxes, and pointed out, that such large surpluses as we have had during the past few years, were an invitation to the "spenders" or politicians to spend money.

Prof. Adams drew particular attention to the fact, that provision was made in the budget for the amount of $333,000,000, which went into the sinking fund for the reduction of the national debt, also that approximately $190,000,000 was being received yearly from foreign debtors, which was also applied to the reduction of this debt, making a total annual reduction of well over $500,000,000. Prof. Adams said it should be distinctly understood therefore, that the national debt was being reduced by this amount, irrespective of any surpluses accruing each year, which might also be applied to the same purpose. The surplus for the fiscal year ending June 30th, 1927, amounted to approximately $630,000,000 over $600,000,000 of which was applied to the reduction of the national debt, making with the $500,000,000 referred to above, a total of over $1,100,000,000 used for this purpose during that fiscal year. Prof. Adams said this should be understood thoroughly, because it formed part of the U. S. Chamber of Commerce case, in their appeal for a tax cut of $400,000,000 instead of the cut of $225,000,000, suggested by the Secretary of the Treasury and President Coolidge.

On the other hand as the President points out, among the receipts for the past few years there have been included special amounts, which will not recur in the future, consisting of the liquidation of certain capital assets, amounts received for salvaged war supplies and from sales of securities purchased during the war.

Prof. Adams said the "average" reduction in the national debt during the last few years had been $870,000,000. Speaking of the case for the corporations, Prof. Adams said that in his opinion, the corporations have failed during the last five years to get redress, which would have been beneficial through their inactivity in pressing their claims as a class, whereas some special industries had been successful in obtaining reductions in taxes through organizing campaigns for the purpose. He said therefore, that he believed pressure must be brought to bear by the corporations, to get a fair tax, and to force economy in spending of the taxes. He also pointed out that stockholders in corporations (which now pay 13½% per annum) after paying their surtaxes paid approximately 15.3% on their income, whereas taxpayers doing business through unincorporated concerns paid approximately 9% (after surtaxes) making a spread of over 6%, which was inequitable.

Prof. Adams then spoke of the delay in settling tax cases, stating that on October 7th of this year, there were pending over 900,000 tax cases; 10,000 of these before the Bureau relating to the years 1917 to 1922 inclusive. He pointed out that about 196 corporations pay one third of the total corporation tax, and that he believed a fair proportion of these 196 corporations were represented in the 10,000 unsettled cases referred to above, and therefore that probably decisions had still to be made for the years 1917 to 1922, involving millions of dollars, which when settled, might help produce a surplus.

Speaking of the office of the General Counsel of the Bureau, Prof. Adams said they were swamped with work, each lawyer having charge of 200 to 300 active cases. Prof. Adams next spoke of the U. S. Board of Tax Appeals, and said they had pending 18,300 undecided appeals, involving over $500,000,000. He said at their present rate it will take four years to clear up these cases, and that cases are coming in faster than they are being decided.

Referring again to the fact that the national debt is being reduced each year by over $500,000,000, of which $330,000,000 comes from the sinking fund provided for in the regular budget, and approximately $190,000,000 from foreign debtors Prof. Adams said that in his opinion, he believed the rest of the budget should be cut pretty close, so as to avoid any large surplus, and that if this were done, he believed it would force a quicker settlement of the outstanding tax cases. He thought that if the Treasury Department had been obliged to get revenue to balance the budget in the past few years, instead of having had large surpluses, a good many of the outstanding tax cases would have been closed prior to this.

Regarding the fact that approximately 3% of the population pays 90% of the income tax, Prof. Adams said that in his opinion this was too narrow a basis for the national income, and that it would be better if some of the other taxes were kept at their present level, mentioning the automobile tax as being one of these. He also said that the non-settlement of the thousands of outstanding tax cases was the cause of much uncertainty and apprehension on the part of the taxpayers, which was a bad thing, and that this perhaps could be overcome to some extent if there were not so many changes made constantly in the personnel of the Bureau, in which there had been 4700 resignations since its formation.

In conclusion Prof. Adams made the statement, that the Federal, State and Local taxes paid by corporations, represented approximately 25% of their entire net income before deduction of taxes, and 54% of the amount paid in dividends. He said it was essential therefore, that the corporations of the country as a body, should get together and use their best endeavors in an attempt to influence federal tax legislation, and that effective expression of the aims and desires of industry could best be given through an organization representing the business concerns of the country.

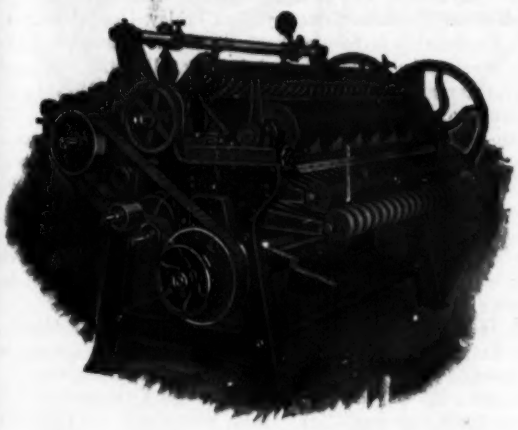
German Paper Trade Directory

A Directory of the German Paper, Pasteboard and Paper Material Manufacturers. Published by Papier-Zeitung (Carl Hofmann), Berlin, SW 11. Price 3 marks. 72 pages. Bound.

The German Paper Manufacturers Directory which is shortly to appear in its 8th edition covers the entire paper and writing materials line, and also gives a comprehensive and up-to-date listing of paper, paper material and pasteboard manufacturers together with dealers in raw material for paper manufacture (rags, waste paper, wood pulp and cellulose) their uses and production.

For many wholesalers this book will be sufficient to meet all requirements and other merchants will gladly employ this handy volume in place of the bulky directories they are accustomed to use.

Paper Cutters
Single, Duplex and Diagonal



CUTTER KNIVES PATENT TOP SLITTER

HAMBLET MACHINE CO.
LAWRENCE, MASS.

GENERAL Aluminum Sulphate CHEMICAL

GENERAL CHEMICAL COMPANY 40 RECTOR STREET, NEW YORK

Appleton
Felts and Jackets

"Ask Your Neighbor What He Thinks of Them"

109 JENSSEN
Two-Tower Acid Systems now in operation or building.

Jenssen Spray Type Cooler
Bullard Gas Washer
Decker Cooking Process
Kamyr Feltless Machines
Kamyr Pulp Presses
Strindlund Relief Cooler

G. D. Jenssen Company
200 5th Ave. New York, N. Y.

Concentrate
your paper-buying from leading manufacturers in The Fifth Avenue Building

Begin your New York buying trip at The Fifth Avenue Building. It is the logical place. For here you will find the New York offices and salesrooms of the leading paper merchants, mill supply manufacturers and mill engineers. You can complete your seasonal needs in one building and on one buying trip. Convenience of location, a pleasant atmosphere, and association with successful business men combine to make this the most satisfactory place to do your buying.

The location of The Fifth Avenue Building itself puts you within easy reach of all up-town and down-town New York. You are ten minutes by subway from the Pennsylvania Station. Thirteen from Grand Central. Near leading hotels, and theatres. Two elevated lines are but two blocks away. Busses and surface lines pass the door.

The FIFTH AVENUE BUILDING
Broadway and Fifth Avenue,
at Madison Square, New York
"More than an office building"

Obituary

Garrett Schenck

BOSTON, Mass., January 9, 1928.—Garret Schenck, President of the Great Northern Paper Company, the second largest manufacturers of news print paper in the country, died Wednesday of last week at his home on South avenue, Weston, after a month's illness. His death followed a shock he suffered at his home, December 2, after a day spent in his office at 201 Dovenshire street.

Born in Trenton, N. J., March 13, 1854, he was the descendant of one of the old original Dutch settlers of the country. As a boy he got his start in the paper business when he was employed at the plant of Francis W. Bird of Walpole and after remaining there for a few years entered the employ of the Rumford Falls Paper Company.

For a time he engaged in the paper stock business on his own account under the firm name of Dutton & Schenck. The mills which he then established were located at Great Works, Me., and others at Orono and Rumford Falls.

From that time he always retained a legal residence in Maine, where he spent much of his time each year. At the time of his death this was at Millinocket, where the legal office of the paper company was located. The sales department and Treasurer of the company had offices in New York, but he always had a personal office in Boston.

Mr. Schenck organized the Great Northern Paper Company, of which he was the President from its inception. He had mills at Millinocket and at East Millinocket and a third mill at Madison, all in Maine.

At various times in his career Mr. Schenck built mills at Appleton, Wis., and on the Pacific Coast and one that is now operated by the Crown Willamette Company in the West. Other mills which he erected were subsequently occupied by other companies. Mr. Schenck was the last of the directors of the International Paper Company, who formed an interesting group at the beginning of this large corporation.

He was one of the pioneers in the manufacture of sulphite pulp, and he also invented a digester to be used in the cooking of pulp. The history of the improvements on machines in the manufacture of paper shows that many of the devices now in use were worked out under his direction.

During his life he made several large gifts to schools in the mill towns of Maine. The high school at Anson, Me., was named after him and the high school at East Millinocket, where another of the company's mills is located, was named after a son, Garret Schenck, Jr., who died two years ago.

Representatives of the paper industry in New England and business associates were present at the funeral on Friday, January 6, of Garrett Schenck, who was president of the Great Northern Paper Company, Millinocket, Maine. The services were held at his late residence in Weston, Mass. Rev. Dr. Edward T. Sullivan, rector of Trinity Church, Newton Centre, Mass., officiated.

Honorary pallbearers were William A. Whitcomb, first vice-president of the Great Northern Paper Company; Fred A. Gilbert, second vice-president; George Sumner Barton, president of Rice, Barton and Fales Company; J. Otis Wardwell, Sheldon E. Wardwell, Samuel Heilner of Philadelphia, Arthur L. Hobson, president of the St. Croix Paper Company; George D. Dutton, a son-in-law of Mr. Schenck, and former Governor William T. Cobb of Maine.

Active pallbearers were Andrew P. Lane, Fred T. Dolbeare, Lester R. Smith, William O. McKay, H. Merton Joyce and Hardy S. Ferguson.

Memorial services were also held at the mill of the Great Northern Paper Company, Millinocket, at the hour of the services in Weston. All business in the town was suspended, and the schools closed. The 800 employees of the mill and hundreds of citizens assembled in front of the administration building, where a memorial tablet was unveiled by Richard Caspar, assistant superintendent. Addresses of eulogy were made by George W. Stearns, first selectman of the town; Judge Frederick E. Doule and William Marr, superintendent of schools. Rev. John Hogan, Catholic pastor, and Rev. A. M. Thompson, of the Congregational Church, took part in the ceremonies.

T. S. Estabrook

T. S. Estabrook, vice-president and general manager of the Cornell Wood Products Company, died Friday, December 23, 1927.

Mr. Estabrook was born at Sackville, New Brunswick, Canada, and is survived by his widow and daughter, Dorothy; his mother, two brothers and one sister. He was a member of Westward Ho and Brookwood Golf Clubs and the Oak Park Club.

In the industry Mr. Estabrook was recognized as a successful mill executive. For many years he was associated with the Chicago Mill and Lumber Company and was manager of the Fibre Products Division of the company. In 1926 he resigned and became associated with the Cornell Wood Products Company.

He was endeared to all his associates because of his fine character; his company will feel the loss of a comrade as well as an executive of great ability.

The services were conducted by the Rev. F. R. Godolphin of Grace Episcopal Church, Oak Park. The following, former business associates and personal friends, served as pallbearers:

The honorary pallbearers were W. Irving Osborne, George G. Thorpe, Jacob Newman, C. H. Haney, J. L. Hecht, Fred D. Wilson, H. B. Walter, Walter Williams, R. L. McClelland, Thomas W. McNeill, William M. Slenger, and A. J. Knowles.

The active pallbearers were A. W. Miller, F. W. Cole, R. N. Munson, John C. Helbach, E. O. Kemler and Fred W. Meyers, Jr.

Paper Users' Standardization Bureau

HOLYOKE, Mass., January 9, 1928.—American Business is throwing millions of dollars into the scrap basket annually because of poor methods in selecting paper, according to Sidney L. Willson, President of the American Writing Paper Company, Inc.

To offset this heavy loss, he announced today formation of a Paper Users' Standardization Bureau, which will offer counsel to business organizations on methods of eliminating waste.

In addition to the advisory work, in which the Bureau, without charge, will represent the viewpoint of the consumer rather than the paper manufacturer, the service will make use of their extensive laboratory equipment in Holyoke for analyzing all types of business paper. Mr. Willson explained that the expansion of business since the war has increased tremendously the volume of business paper, so that many companies now find the outlay for blank forms, requisitions, extracts, letterhead stationery, etc., one of their heavy expense items.

Part of the loss to business results from the fact that wood pulp paper, which decomposes after a period of years, has been used by accident or in ignorance for the filing of permanent records, with a result that later on a large expenditure has been necessary for transferring the files to permanent paper. Other waste is due to the use of high grade, expensive rag paper for temporary office memoranda and inter-departmental forms, which are cast aside after a few days or weeks.

The Bureau will prescribe the type and rag content of paper that should be employed for every purpose in the business organization receiving the advice, without attempting to specify where the paper should be bought.

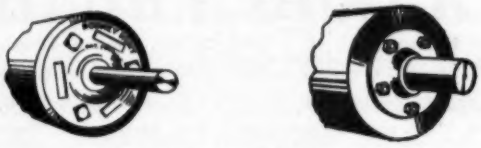
It will be conducted under the auspices of Mr. Willson and will be headed by paper experts who have analyzed for the American Writing Paper Company, Inc., the paper of more than 300 large businesses and municipalities. Mr. Willson obtained his views on the economy of standardization while associated with the War Industries Board during the War.

It is his opinion that if business should adopt the right paper for the purpose in every instance where paper is used, the saving would be enormous annually, without damage to the paper industry, which could adjust its production to the proper needs.

RODNEY HUNT

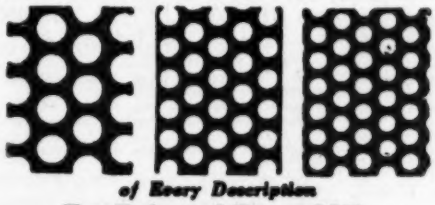
ROLLS WOOD METAL RUBBER
FOR ANY MACHINE
63 Maple Street
ORANGE, MASS. U.S.A.

RE-ORDERS
Prove Good Value
No obligation to ask for information on your size rolls



Two of Many Good Rolls
RODNEY HUNT, Orange, Mass.
63 Maple St.

PERFORATED METALS



of Every Description
For Pulp and Paper Mills
THE HARRINGTON & KING PERFORATING CO.
5652 Fillmore St., Chicago, Ill.
NEW YORK OFFICE: 114 Liberty St.

The
ST. REGIS PAPER COMPANY

Daily Capacity
525 TONS

Newsprint
Catalog and Directory Papers
Fibre Wrapping Papers
Packers Oiled Manila
Specialties

General Sales Office
49 Wall St., New York

Farmers' Bank Bldg.
Pittsburgh, Pa.

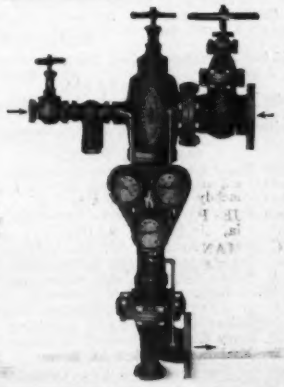
SK THERMO-COMPRESSORS

will boost exhaust steam from 5 or 10 lbs. pressure to 20 or 30 lbs. pressure for paper dryers.

They operate with live steam, entrain exhaust steam, and discharge at pressures suitable for above service. They use up exhaust steam, reduce consumption of live steam and eliminate reducing valves.

Send for Bulletin 4-F.

Schutte & Koerting Co., 1255 N. 12th Street, Philadelphia, Pa.



Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JANUARY 7, 1928

SUMMARY

Cigarette paper .....237 cs.
Wall paper .....31 bls., 17 cs.
Paper hangings .....96 bls., 10 cs.
Paper hangings .....96 bls., 10 cs.
News print .....798 rolls
Printing paper .....29 cs.
Wrapping paper ....26 rolls, 18 bdls., 8bls., 11 cs.
Stencil paper .....44 cs.
Filter paper .....11 bls., 46 cs.
Surface coated paper .....238 cs.
Coated paper .....43 cs.
Copy paper .....43 cs.
Writing paper .....14 cs.
Tissue paper .....20 cs.
Decalcomania paper .....18 cs.
Colored paper .....15 cs.
Straw paper .....30 cs.
Straw pulp board .....187 rolls
Straw board .....315 rolls
Miscellaneous paper .....21 bls., 66 cs.

CIGARETTE PAPER

P. Lorillard & Co., Cabo Mayor, Marseilles, 50 cs.
De Manduit Paper Corp., Liberty, Havre, 2 cs.
Standard Products Corp., Liberty, Havre, 80 cs.
Standard Products Corp., Suffren, Havre, 97 cs.
Standard Products Corp., France, Havre, 8 cs.

WALL PAPER

F. J. Emmerich, Adriatic, Liverpool, 23 bls.
A. C. Dodman, Jr., Inc., Andania, Liverpool, 4 bls.
F. J. Emmerich, Cleveland, Hamburg, 4 bls.
W. P. Nelson & Co., Cleveland, Hamburg, 4 cs.
Beard Wallpaper Co., Cleveland, Hamburg, 5 cs.
Cassidy Hicks Wallpaper Co., Cleveland, Hamburg, 6 cs.
Universal Carloading Co., Cleveland, Hamburg, 2 cs.

PAPER HANGINGS

A. C. Dodman, Jr., Inc., Adriatic, Liverpool, 45 bls.
A. C. Dodman, Jr., Inc., Suffren, Havre, 2 cs.
W. H. S. Lloyd & Co., Minnekahda, London, 51 bls., 6 cs.
A. L. Diament & Co., France, Havre, 2 cs.

NEWS PRINT

F. Henjes, Jr., Cleveland, Hamburg, 62 rolls.
Perkins Goodwin & Co., Cleveland, Hamburg, 516 rolls.
Hudson Trading Co., Tugela, Sundsvall, 220 rolls.

PRINTING PAPER

P. C. Zuhlke, Lapland, Antwerp, 29 cs.

WRAPPING PAPER

J. E. Bernard & Co., France Maru, Hamburg, 2 cs.
Blauvelt Wiley Paper Manfg. Co., Athenia, Glasgow, 18 bdls.
International F'd'g Co., Boschdyk, Rotterdam, 26 rolls, 9 cs., 8 bls.

STENCIL PAPER

Arlac Dry Stencil Co., Cleveland, Hamburg, 44 cs.

FILTER PAPER

E. Fougera & Co., Antonia, London, 42 cs.
Lunham & Reeve, Minnekahda, London, 3 cs.
H. Reeve Angel & Co., Inc., Aquitania, Southampton, 11 bls., 1 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Lapland, Antwerp, 126 cs.
Gevaert Co. of America, Lapland, Antwerp, 107 cs.
Whiting & Patterson Co., Inc., Cleveland, Hamburg, 5 cs.

COATED PAPER

Globe Shipping Co., Cleveland, Hamburg, 43 cs.

COPY PAPER

Whitefield Paper Works, Atago Maru, Kobe, 43 cs.

WRITING PAPER

Japan Paper Co., Volendam, Rotterdam, 3 cs.
Guaranty Trust Co., France, Havre, 1 cs.
The Eleto Co., Suffren, Havre, 9 cs.
Japan Paper Co., Boschdyk, Rotterdam, 1 cs.

TISSUE PAPER

F. C. Strype, Andania, Liverpool, 20 cs.

DECALCOMANIA PAPER

L. A. Consmiller, Cleveland, Hamburg, 8 cs.
C. W. Sellers, Cleveland, Hamburg, 10 cs.

COLORED PAPER

S. Langsdorf Co., Cleveland, Hamburg, 2 cs.
P. H. Petry & Co., Cleveland, Hamburg, 13 cs.

STRAW PAPER

Bank of The Manhattan Co., Volendam, Rotterdam, 30 cs.

STRAW PULP BOARD

J. P. Heffernan Paper Co., Boschdyk, Rotterdam, 187 rolls.

STRAW BOARD

R. Wilson Paper Corp., Sacandaga, Antwerp, 254 rolls.
A. Vuyk, Sacandaga, Antwerp, 61 rolls.

MISCELLANEOUS PAPER

Globe Shipping Co., Volendam, Rotterdam, 41 cs.
F. Henjes, Jr., France, Havre, 3 cs.
F. J. Emmerich, France, Havre, 11 bls.
Wilkinson Bros. & Co., Inc., Cleveland, Hamburg, 10 cs.
A. Morton, Suffren, Havre, 2 cs.
Keller Dorian Paper Co., Suffren, Havre, 14 cs.
Canson & Montgolfier, Suffren, Havre, 6 cs.

RAGS, BAGGING, ETC.

C. B. Richard & Co., Alberta, Catania, 18 bls. bagging.
C. B. Richard & Co., Alberta, Catania, 113 bls. rags.
Bank of America, Cabo Mayor, Genoa, 306 bls. rags.
A. W. Fenton, Inc., Cabo Mayor, Genoa, 177 bls. bagging.
C. B. Richard & Co., Cabo Mayor, Leghorn, 302 bls. rags.
E. Butterworth & Co., Inc., Cabo Mayor, Leghorn, 108 bls. rags.
American Exchange Irving Trust Co., Zinal, Valencia, 190 bls. rags.
N. Y. Trust Co., Zinal, Barcelona, 53 bls. rags.
Chemical National Bank, Zinal, Barcelona, 100 bls. bagging.
Banco Com'l Italiana Trust Co., Zinal, Marseilles, 101 bls. bagging.
E. J. Keller Co., Inc., Saucon, ——, 81 bls. rags.
A. H. Searle, Tarantia, Glasgow, 62 bls. paper stock.
W. Steck & Co., Culberzson, B. Aires, 56 bls. rags.
Darmstadt Scott & Courtney, Culberson, B. Aires, 20 bls. rags.
J. Cohen Son & Co., Adriatic, Liverpool, 17 bls. rags.
Darmstadt Scott & Courtney, Siboney, Havana, 71 bls. rags.
Castle & Overton, Inc., France, Hamburg, 143 bls. rags.
E. J. Keller Co., Inc., Mercer, Rotterdam, 156 bls. rags.
Banco Com'l Italiana Trust Co., Laguna, Leghorn, 92 bls. rags.
C. B. Richard & Co., Laguna, Leghorn, 180 bls. rags.
French American Bkg. Corp., Laguna, Leghorn, 143 bls. rags.
E. J. Keller Co., Inc., Coahoma County, Antwerp, 54 bls. thread waste.
E. J. Keller Co., Inc., Sacandaga, Antwerp, 160 bls. flax waste.
Equitable Trust Co., Sacandaga, Antwerp, 110 bls. flax waste.
Amsinck Sonne & Co., Inc., Athenia, Glasgow, 66 bls. paper stock.
E. J. Keller Co., Inc., Cleveland, Hamburg, 32 bls. canvas.
A. W. Fenton, Inc., Cleveland, Hamburg, 18 bls. rags.
D. I. Murphy, Liberty, Havre, 275 bls. rags.
Castle & Overton, Inc., Liberty, Havre, 242 bls. rags.
V. Galaup, Liberty, Havre, 61 bls. rags.
R. Godfrey, Liberty, Havre, 3 bls. rags.
Darmstadt Scott & Courtney, Antonia, Southampton, 15 bls. rags.
Bulkley Dunton & Co., Marengo, ——, 260 b's. rags.
E. J. Keller Co., Inc., Sarcoxie, Havre, 146 bls. rags.
E. J. Keller Co., Inc., Atago Maru, ——, 150 bls. bagging.
Castle & Overton, Inc., Talisman, Belgium, 210 bls. rags.
Castle & Overton, Inc., Mercier, Belgium, 164 bls. bagging.
Castle & Overton, Inc., Bellflower, Ireland, 96 bls. rags.
Castle & Overton, Inc., Tampa, India, 115 bls. bagging.
Castle & Overton, France Maru, Germany, 143 bls. rags.
Castle & Overton, Inc., P. Luckenbach, Japan, 40 bls. rags.

OLD ROPE

Jaffe Products Co., Primero, Havana, 13 bls.
Brown Bros. & Co., Volendam, Rotterdam, 20 bls., 67 coils.
Brown Bros. & Co., Lapland, Antwerp, 64 bls.
Brown Bros. & Co., Cleveland, Hamburg, 29 bls.
E. Butterworth & Co., Inc., Adriatic, Liverpool, 79 coils.

CASEIN

National City Bank, Primero, B. Aires, 500 bags, 30,000 ks.
Bank of London, Cuberson, B. Aires, 917 bags, 121,297 lbs.
T. M. Duche & Sons, Culberson, B. Aires, 667 bags, 40,020 ks.
Kalbfleisch Corp., W. World, B. Aires, 1,895 bags.
American Exchange Irving Trust Co., Suffren, Havre, 97 bags.

WOOD PULP

American Exchange Irving Trust Co., Alberta, Trieste, 490 bls. wood pulp.
Johanson Wales & Sparre, Inc., Wanja, Sundsvall, 625 bls. sulphite, 125 tons.
Scandinavian Pulp Agency, Inc., Wanja, Sundsvall, 3,500 bls. sulphite, 700 tons; 6,250 bls. sulphate, 1,375 tons.
M. Gotteesman & Co., Inc., Wanja, Sundsvall, 2,550 bls. sulphite, 510 tons.
Bulkley Dunton & Co., Wanja Sundsvall, 3,450 bls. wood pulp.
Pagel Horton & Co., Inc., Irland, Gefle, 1,425 sulphite.
Bulkley Dunton & Co., Irland, ——, 2,365 bls. sulphite.
E. J. Keller Co., Inc., Volendam, Rotterdam, 600 bls. wood pulp.
J. Anderson & Co., France Maaru, Hamburg, 600 bls. sulphite, 120 tons.
M. Gottesman & Co., Inc., Tugela, Soraker, 4,250 bls. wood pulp.
Scandinavian Pulp Agency, Inc., Tugela, Wifstavarf, 875 bls. sulphite; 1,250 bls. sulphate.
Perkins Goodwin & Co., Tugela, Obbola, 875 bls. sulphite.
M. Gottesman & Co., Inc., Boschwyk, Rotterdam, 1,010 bls. wood pulp.
Bulkley Dunton & Co., Boschdyk, ——, 800 bls. wood pulp.
Woodpulp Service Corp., Oscar II, Oslo, 160 bls. kraft pulp.
E. J. Keller Co., Inc., Dresden, Hamburg, 693 bls. wood pulp.

WOOD PULP WADDING

Birn & Wachenheim, Volendam, Rotterdam, 50 bls.

WOOD FLOUR

The Burnet Co., Mercer, Rotterdam, 1,000 bags, 50,000 ks.

PHILADELPHIA IMPORTS

WEEK ENDING JANUARY 7, 1928

S. Birkenstein & Sons, Laguna, Genoa, 247 bls. old rope.
Robert Blank, Laguna, Naples, 99 bls. rags.
S. Birkenstein & Sons, Sacandaga, Antwerp, 125 bls. rags.
Castle & Overton, Inc., Sacandaga, Antwerp, 115 bls. rags.
Phila. Girard National Bank, Sacandaga, Antwerp, 43 bls. rags.
N. Mayer, Sacandaga, Antwerp, 162 bls. rags.
Chemical National Bank, Sacandaga, Antwerp, 45 bls. rags.
Bulkley Dunton & Co., Atlantic, ——, 1,500 bls. wood pulp.
Buck Kiaer & Co., Inc., Dania, Oslo, 400 bls. sulphite.
Castle & Overton, Inc., West Alsek, Germany, 85 bls. rags.
Castle & Overton, Inc., West Harcuvar, Germany, 58 bls. rags.
Castle & Overton, Inc., Schodack, France, 203 bls. rags.
Castle & Overton, Galtymore, Scotland, 112 bls. rags.
Castle & Overton, Inc., Bristol City, England, 115 bls. rags.
Castle & Overton, Inc., London Exchange, England, 115 bls. rags.
Castle & Overton, Sac City, Belgium, 97 bls. rags.
Castle & Overton, Holstein, Germany, 45 bls. rags.
E. J. Keller Co., Inc., Wytheville, Rotterdam, 195 bls. rags.
E. J. Keller Co., Inc., Kellerwald, Hamburg, 37 bls. rags.
E. J. Keller Co., Inc., Coer d'Alene, ——, 170 bls. rags.

NORFOLK IMPORTS

WEEK ENDING JANUARY 7, 1928

Bulkley Dunton & Co., York, ——, 250 bls. wood pulp.
Buck Kiaer & Co., Inc., Delaware, Oslo, 800 bls. sulphite.

(Continued on page 72)

PORTLAND, OREGON

Portland is in the heart of the big timber region of the Pacific Northwest. It also has an abundance of cheap hydro-electric power for manufacturing purposes, good ocean and railway shipping facilities and a fair supply of skilled labor, practically all of which is non-union.

Portland is also an ideal place to live. It has a mild climate, good water and plenty of nice hotels, apartment houses and homes. Also good schools, theaters, libraries, clubs and parks.

I would be pleased to serve you in the location, design and construction of the new mill of yours.

HENRY BLACK

Complete Building Construction

383 Pittock Block - - - Portland, Oregon

Telephone Broadway 8060

Iron Workers, Cement Workers, Bricklayers, Carpenters, Roofers, Plumbers, Electricians, Cabinet-makers, Painters and Paperhangers; also Real Estate Bonds and Mortgages

West Virginia Pulp and Paper Company

Manufacturers of

SUPERCALENDERED and MACHINE FINISHED BOOK and LITHOGRAPHIC PAPERS

Offset, Envelope, Bond, Writing, Cover and Music Paper, High Grade Coated Book, Index Bristol, Post Card, Kraft and Label Papers.

also

Bleached Spruce Sulphite and Soda, Kraft Pulp

200 Fifth Avenue, New York — 732 Sherman Street, Chicago

503 Market St., San Francisco, Cal.

122 East 7th St., Los Angeles, Cal.

Sixth and Chestnut Sts., Philadelphia, Pa.

INTERNATIONAL ACCEPTANCE BANK

INCORPORATED

Condensed Statement, December 31, 1927

RESOURCES

Stockholders' Uncalled Liability	$5,000,000	
Cash on Hand and Due from Banks		$11,187,745.13
Bankers' Acceptances and Call Loans Secured by Acceptances		10,607,068.35
U. S. Government, State and Municipal Securities		15 406,227.31
Other Securities and Advances		19,582,895.90
Customers' Liability a/c Acceptances and Letters of Credit		73,808,035.20
		$130,591,971.89

LIABILITIES

Subscribed Capital and Surplus	$15,250,000	
Capital and Surplus Paid In		$10,250,000.00
Undivided Profits		4,502,967.09
Reserve for Dividends Payable January 15, 1928		153,750.00
Due to Banks and Customers		38,457,986.17
Acceptances and Letters of Credit Outstanding		76,929,861.89
Reserve for Taxes, etc.		297,406.74
		$130,591,971.89

PAUL M. WARBURG, Chairman — F. ABBOT GOODHUE, President

52 Cedar Street, New York

Sulphur

A FIRST REQUISITE IN

Paper Making

Large Production
Ample Reserves
Prompt Deliveries
Purity 99½%

TEXAS GULF SULPHUR CO.

41 E. 42nd Street, New York City

Mine Gulf, Matagorda County, Texas

Imports of Paper and Paper Stock

(*Continued from page 70*)

E. J. Keller Co., Inc., Binnendyk, Rotterdam, 39 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING JANUARY 7, 1928

Castle & Overton, Inc., Mercer, Rotterdam, 1,531 bls. wood pulp.

Bulkley Dunton & Co., Mercer, ——, 750 bls. wood pulp, 154 tons.

Congoleum Nairn Co., Coahoma County, Antwerp, 735 bls. rags; 34 bls. bagging.

S. Shapira, Liberty, Havre, 120 bls. rags.

V. Galaup, Liberty, Havre, 151 bls. rags.

Congoleum Nairn Co., Liberty, Dunkirk, 527 bls. rags.

V. Galaup, Liberty, Dunkirk, 179 bls. rags.

Bulkley Dunton & Co., Atlantic, ——, 7,000 bls. wood pulp.

Buck Kiaer & Co., Inc., Dania, Oslo, 600 bls. sulphite.

Buck Kiaer & Co., Inc., Delaware, Greaker, 2,000 bls. sulphite.

Buck Kiaer & Co., Inc., Atlantic, Iggesund, 375 bls. sulphite.

E. J. Keller Co., Inc., Kellerwald, Hamburg, 75 bls. rag pulp.

NEW ORLEANS IMPORTS

WEEK ENDING JANUARY 7, 1928

Castle & Overton, Inc., De La Salle, France, 169 bls. rags.

Castle & Overton, Inc., Vogtland, Germany, 86 bls. rags.

Castle & Overton, Inc., Raimond, Belgium, 416 bls. rags.

Castle & Overton, Inc., Syros, France, 400 bls. rags.

E. J. Keller Co., Inc., Leerdam, Rotterdam, 233 bls. bagging.

BOSTON IMPORTS

WEEK ENDING JANUARY 7, 1928

J. Anderson & Co., Alberta, Trieste, 284 bls. wood pulp.

Pagel Horton & Co., Inc., Irland, Gefle, 15,250 bls. sulphate; 2,000 bls. sulphite.

Bulkley Dunton & Co., Irland, ——, 1,800 bls. wood pulp.

E. J. Keller Co., Inc., Nevadan, ——, 200 bls. bagging.

Castle & Overton, Inc., West Alsek, Germany, 46 bls. rags.

Castle & Overton, Inc., Vardulia, Antwerp, 61 bls. rags.

Diana Paper Co. Creditors To Meet

[FROM OUR REGULAR CORRESPONDENT]

UTICA, N. Y., January 9, 1928.—Attorney C. A. Phelps, representing Daniel B. Schuyler, president of the Jefferson County National Bank of Watertown, as trustee in bankruptcy of the Diana Paper Company has obtained an order from Judge John Conboy, referee, fixing a meeting of creditors at 10 o'clock on January 20 in the office of Referee Conbay in Watertown. The purpose of the meeting is to consider the facts in connection with the various claims and phases of the Diana case and to take such action as deemed necessary for the guidance of Trustee Schuyler.

The petition upon which the order was granted sets forth that the purpose of the meeting is to authorize the trustee to institute and prosecute such action or proceedings as may be determined at the meeting, to vote on such action or proceedings and to take any other action as may legally come before the meeting.

This move on the part of Mr. Phelps forestalls the proposed action of Attorney Benjamin Stolz of Syracuse, representing the Howard Smith Paper Mills Ltd., of Montreal, a creditor of the bankrupt Diana Company. Since the sale of the Diana Company to Edward S. Lansing, as representative of the present owners Attorney Stolz has contended that the property was sold for much less than its value and that Mark S. Wilder and the banks interested illegally preferred their own claims as creditors in the last few days of the Diana before going into bankruptcy. He claims they should shoulder certain large obligations and turn in a half million or more dollars to be distributed to the creditors.

The action of the creditors at the coming meeting will serve as an expression of sentiments and should the majority of the creditors approve the proceedings to date the Smith concern will have difficulty in seeking removal of Mr. Schuyler as trustee.

New Flexitalic Folder

A handy folder with price lists has just been published by the Flexitallic Gasket Company, Camden, N. J. A copy will be sent on request to any reader of this publication. The folder gives complete information for ordering "Flexitallic" gaskets for pipe flanges, tube caps, and hanholes. It includes dimensions, prices, a list of over twenty boilers to which their tube cap gaskets are applicable. The "Flexitallic" gasket is, as the name indicates, flexible and it is partly metallic. It contains more asbestos than metal. The metallic portion is what makes it flexible and elastic. The manufacturers claim that less pressure is required to make the joint tight with "Flexitallic" gaskets than with any other gasket. Time, labor, and money are saved because the "Flexitallic" is applied more quickly and more easily. Furthermore, the "Flexitallic" gasket may be used time after time in the same joints. It is recommended for places where it is impossible to hold joints tight with other gaskets. In other words, it is a flexible metallic gasket built on correct mechanical principles to withstand modern high pressures and intense heat.

To Be Known as Sylvia Paper Board Co.

SYLVA, N. C., January 9, 1928.—Sylva's big new paper pulp industry, an outgrowth of the purchase recently from the Parsons Tanning company of the extract branch of that company will be known as the Sylva Paper Board company, E. L. McKee of Sylva, manager of the new plant, announced Saturday.

Construction engineers who have been busy for several weeks at the paper plant site are completing their work so that actual construction of buildings may be started by January 10, Mr. McKee stated, and an organization meeting for the purpose of electing officials and directors of the new company was held in Dayton recently, in order that further details of operation of the industry, which probably will be one of the largest of its kind in the south, might be worked out at once.

Although no statement has been made officially, further than that to the effect that the holdings would be extensive," it is understood that the land, buildings and equipment will represent an outlay of several hundred thousand dollars.

The Meade Paper Company of Dayton, Ohio, one of the largest manufacturers of paper in the country, and allied interests, bought the extract plant, and will use the "leavings" from the tanning plant of the Parsons Company.

By a newly-perfected process, both bark and the chestnut wood blocks may be utilized in the making of the heavy and rough pulp at the new plant, to be located just across the Southern Railway tracks from the Parsons company.

To Charge Differential on Twine

BOSTON, Mass., January 10, 1928.—It is rumored on good authority that the hard and soft fiber twine mills are planning to charge differentials ranging from 1 to 5 cents a pound for small shipments. This action will be welcome to the jobbers as it will give them encouragement to stock the twines. Previously, in a great many instances they have preferred to have the mills stock the twines, a policy which increased the cost to the manufacturer, with an added burden of distribution. At this time when so much is being done in standardizations of waste, duplications, etc., the burden of carrying the stock will be shifted to the jobbers and the jobbers will be even more ready to eliminate unnecessary sizes and put-ups. The same policy has been in successful operation for more than a year in the polished cotton twine trade. Some of the larger paper mills have also adopted it in quantities of less than 2,000 pounds.

Saranac Utilities, Inc., Formed

PLATTSBURG, N. Y., January 9, 1928.—Saranac Utilities, Inc., is the name of a new concern chartered during the week to build dams and develop power along the Saranac River. The principal office will be in this city. The incorporators are all well known figures in the power and paper industry of Northern New York. They are George and Leonard Ferris and Henry T. Dorance.

Cotton and Paper Rolls
Super Calenders
Friction Calenders
Embossing Calenders
Hydraulic Presses and Pumps

Successors to the Granger Foundry & Machine Co.

The Textile-Finishing Machinery Company
PROVIDENCE, R. I.

ALPHA FIBRE

Uniform Quality

Alpha takes the place of most grades of rags in the making of fine papers. Its absolute regularity and greater purity maintain your high standards.

Brown Company
PORTLAND, MAINE.

ENGINEERS

Power plants—additions—complete paper mill projects

ONE great organization—a specialist in paper mill engineering and construction—designs, builds, rebuilds, reports, appraises, for many of the most important concerns in the paper industry. Plans, price, construction work, delivery date, owner's satisfaction, all guaranteed.

Ferguson customers include:

Hinde & Dauch Co.
A. P. W. Paper Co.
Mead Pulp and Paper Co.
Chillicothe Paper Co.
Warren Mfg. Co.
Spencer-Wynne Paper Products Company
Bennington Wax Paper Company
Oswego Falls Corp.
Fairfield Paper Co.

THE H. K. FERGUSON COMPANY
Hanna Bldg. • Cleveland, Ohio • Phone: SUp. 3620
New York • Detroit • Birmingham • Tokio, Japan

Ferguson
ENGINEERS

TYPE "B" IRON EXTRACTOR

It consists of special magnetic surfaces of great power over which the paper stuff is made to pass. As a result, all the iron and many other foreign substances are completely extracted. Hundreds of these devices are in use daily and no one of them has failed to give complete satisfaction. Write us for Bulletins and full data.

THE ROLAND T. OAKES CO., Holyoke, Mass.

Electrical Specialists. *Established 1885*

for **PAPER MAKING**

New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, January 11, 1928.

More active conditions prevailed in the local paper market during the past week and the demand for the various grades of paper is gradually approaching the volume experienced in the period which preceded the holidays. Prices are holding up to schedule, in most instances, and shading is infrequent. Sales organizations of the leading paper houses are entering the 1928 campaign with enthusiasm and are mostly optimistic over the outlook for the future.

News print paper continues in excellent request and there is a disposition to purchase ahead at the prevailing contract quotations for standard news print. The local newspapers are absorbing an enormous quantity of news print at the present time and are running exceptionally large issues on account of the National Automobile Show, which is being staged this week at the Grand Central Palace, New York.

Paper board production has been greatly curtailed of late, due to the inventory period and the fact that most of the mills have been closed for repairs, etc. A steady inquiry for future business is developing, however, and prospects are generally encouraging. Prices remain unaltered. The fine paper market is in a sound condition and orders are coming in from the printers in satisfactory volume. The coarse paper market is fairly active and wrapping paper is moving at a normal pace for the time of the year.

Mechanical Pulp

Only a moderate amount of business was transacted in the ground wood market during the past week. Although new business remains somewhat scarce due to inventories and curtailment of operations, prices continue steady and unaltered. In many quarters, the outlook for the current year is considered satisfactory and manufacturers are generally optimistic.

Chemical Pulp

Despite all efforts to settle the dispute between the Swedish chemical pulp manufacturers and their workers, a lockout was proclaimed on January 3. The settlement date cannot be predicted at the present time. So far the closing of the Swedish mills has not had much effect on the market although spot quotations are much firmer. A satisfactory amount of contract business is being booked at the prevailing quotations.

Old Rope and Bagging

Mill demand for the different grades of old rope is only moderate at present. Prices generally rule steady and unchanged. Mill inquiry for bagging is moderately active and should improve steadily now that the holiday season and the inventory period have ended. Roofing bagging however, is still in excellent request and second hand bagging is also moving in a normal manner.

Rags

The domestic rag market continues quiet but the situation is expected to improve in the near future with the closing of the inventory period. Roofing stock is still in good request. Prices are practically unaltered. Little change has transpired in the foreign rag situation and brokers are still complaining of the high prices being asked abroad.

Waste Paper

Trading in the paper stock market was fairly active during the past week. Book paper stock is still in excellent request and old kraft machine compressed bales are also exhibiting a strong undertone. Soft white No. 1 shavings are now offered at from 2.75 to 2.90. Old kraft machine compressed bales are quoted at from 2.00 to 2.10. Strictly folded news is selling at from .55 to .65 and No. 1 mixed paper at from .45 to .50.

Twine

Most of the business transacted in the twine market during the past week was along routine lines. Some dealers are anticipating a revival of activities now that the market is beginning to recover from the holiday slackness. Prices of the different grades are generally holding up to the levels which have prevailed for some considerable time.

I. P. Employees Subscribe for Stock

Under the preferred stock offering of 1927, 3,277 employees of International Paper Company and its wholly owned subsidiaries have subscribed for $1,084,0000 par value of the 7 per cent preferred stock of the company. This compares with 2,677 subscribers to $848,800 par value under the 1926 offering, and 2,001 subscribers to $718,900 par value under the 1925 offering.

Stock was offered to employees at $90 a share under the 1925 offering; at $94 a share under the 1926 offering; and at par ($100) a share under the 1927 offering, the present one. In each offering employees had the option of paying in cash in full for the stock to which they subscribed or of paying for it in regular installments.

Yearly bonuses in addition to the regular dividends on the stock are payable under each offering to the employees who keep their stock. These bonuses begin at one dollar per share at the end of the first year and increase at the rate of one dollar per share each year thereafter until the final bonus, $5 a share, is paid at the end of the fifth year. The number of shares to which an employee may subscribe is based on his pay.

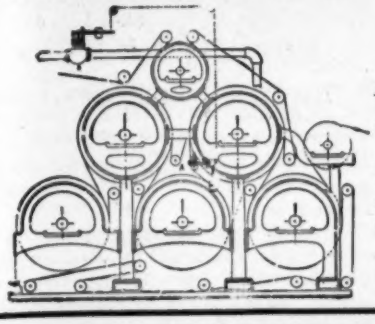
Bids for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., January 11, 1928—The Government Printing Office has received the following bids for 50,000 pounds of white sulphite writing paper in 32 inch rolls; Mathers-Lamm Paper Company, at 6.5 cents per pound; R. P. Andrews Paper Company, 8 cents; Dobler & Mudge, 6.5 cents; American Writing Paper Company, 7.75 cents; Old Dominion Paper Company, 7.14 cents; Allied Paper Mills, 6. 95 cents; Walker Goulard Plehn Company, 6.29 and 6.54 cents; Aetna Paper Company, 7.23 cents; and Reese & Reese, 6.97, 7.15 and 8.08 cents.

The Printing Office has also received the following bids for 40,000 pounds of 24½ x 32 white chemical wood mimeograph paper; R. H. Gladfelter Company, 6 cents less 1 per cent; R. P. Andrews Paper Company, 6.47 cents; Barton, Duer & Koch Paper Company, 6.85 cents; American Writing Paper Company, 7.15 cents; Old Dominion Paper Company, 5.94 cents; Walker Goulard Plehn Company, 6.65 and 7.15 cents; Virginia Paper Company, 5.94 cents; and Whitaker Paper Company, 5.9 cents.

The Pickles Drying Regulator



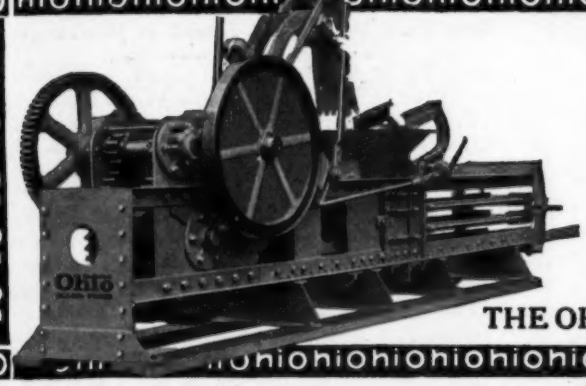
WE ARE SAFE IN OUR PROPOSITION

YOU'LL MAKE NO MISTAKE IN ACCEPTING IT

Pickles Drying Regulator

will do everything we claim for it and more. The test costs you nothing until you are satisfied. Many mills tried one and now have every machine equipped. Write for list of users and other information.

W. F. PICKLES **Buckland, Conn.**



FAMOUS **Ohio**

BALING PRESS

By simply turning up on the two screws at the side, the top and bottom of bale chamber and the two sides are brought nearer together thus making the issuing bale smaller and more compact.

Made in Three Sizes

THE OHIO CULTIVATOR CO., Bellevue, Ohio

SAVEALLS AMERICAN CONTINUOUS FILTER DECKERS THICKENERS UNITED FILTERS CORP. HAZLETON, PA. BLEACH WASHERS

Perforated Metal Screens

for every purpose

Elevator Buckets (plain or perforated) Stacks and Tanks

"Mitco" Interlocked Steel Grating—Light and Heavy Steel plate Construction

HENDRICK MFG. CO., Carbondale, Pa.

New York Office 30 Church St. Pittsburgh Office: 904 Union Trust Bldg. Hazleton, Pa., Office: 738 W. Diamond Ave.

Bristol's Recording Instruments

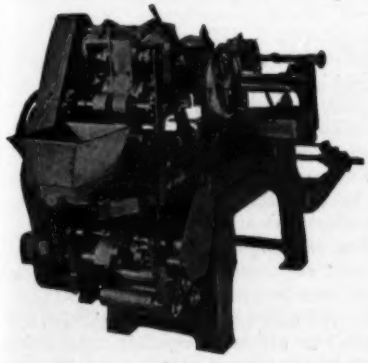
For Pressure, Vacuum, Temperature, Liquid Level, Humidity, Speed, Electric Units, etc.

The Bristol Company Waterbury, Connecticut

BRISTOL'S

Ruths Accumulator Company, Inc.

292 Madison Av., New York City



HIGHEST SPEED
Paper Bag Machinery

Get My Quotations Before Placing Your Orders

Special Machinery Designed and Built

A. L. PARRISH,

1702 Robinson St., South Bend, Ind.

Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, January 11, 1928.

During the past week trading in the local chemical market was quite active and a good volume of contract business was booked for the coming year. Supplies continue to move into consumption in a satisfactory manner. Even greater activity is predicted for the near future following the completion of the inventory period. In most instances, prices remain steady and unchanged.

BLANC FIXE.—Steadiness prevails in the blanc fixe market. Demand for both the pulp and the powder is fairly persistent. Prices remain practically unaltered. The pulp is offered at $60 per ton, in bulk, while the powder is quoted at from 4 cents to 4¼ cents a pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market is in a strong position. Production is being well adjusted to consumption and the large tonnage of contract business on the books assures a steady absorption of the output. Bleaching powder is selling at from $2 to $2.35 per 100 pounds, in large drums, at works, according to quantity and size of contract.

CASEIN.—Demand for casein has improved somewhat but is mostly confined to small orders. Prices of the domestic product are slightly higher but quotations on imported casein are unchanged. Domestic casein is now quoted at from 17½ cents to 18¾ cents a pound. Imported casein is still selling at from 18 cents to 18½ cents a pound, all in bags, car lot quantities.

CAUSTIC SODA.—The caustic soda market is exhibiting a strong undertone. A satisfactory volume of contract business has been booked for 1928 delivery. Prices remain steady and unchanged. Solid caustic soda is selling at from $2.90 to $2.95 per 100 pounds. The flake and the ground are offered at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Conditions in the china clay market are satisfactory and a substantial amount of contract business has already been booked for the coming year. Prices generally remain unaltered. Imported china clay is quoted at from $15 to $25 a ton, ship side. Domestic paper makers' clay is offered at from $8 to $9 a ton, in bulk, at mine, and pulverized at from $10 to $12 a ton.

CHLORINE.—Consumption of chlorine continues heavy and numerous good sized contracts are being booked for 1928 delivery at the attractive prices already announced. Chlorine is still selling at 3½ cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation ranges from 3¾ cents to 4 cents a pound.

ROSIN.—Continued light receipts of gum rosin have resulted in further advanced quotations. Shipments against contract have been moving in heavy volume. At the naval stores, the grades of gum rosin used in the paper mills are now quoted at from $9.60 to $10.30 per 280 pounds, ex dock, in barrels. Wood rosin continues unchanged at $6.90 per 280 pounds, in barrels, southern shipping points.

SALT CAKE.—The salt cake market was fairly active during the past week. An excellent volume of contract orders have been booked to date. Shipments against contract continue to move at a normal pace. Prices are holding up to schedule. Salt cake is selling at from $18 to $19 a ton, in bulk, at works. Chrome salt cake is quoted at from $14 to $15 a ton, in bulk, at works.

SODA ASH.—Business in the soda ash market was excellent for the time of the year and a satisfactory number of contract orders have already beeen booked for forward delivery. Prices are holding up very well. Contract prices of soda ash, in car lots, at works, rule as follows: in bulk, $1.15; in bags, $1.32; and in barrels, $1.55.

STARCH.—Most of the business transacted in the starch market during the past week was along routine lines. No changes in quotations have been made for some time by the refiners despite the increased value of raw materials. Special paper makers' starch is still quoted at $3.07 per 100 pounds, in bags, and at $3.34 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The sulphate of alumina market is in a sound position although the movement of supplies into consumption has been rather light of late. Commercial grades of sulphate of alumina are still selling at from $1.40 to $1.45 per 100 pounds. The iron free is offered at from $2 to $2.05 per 100 pounds, in bags, at works.

SULPHUR.—With the contract prices of sulphur unchanged from last year's basis, an excellent volume of new business has been secured for the current year. Contract withdrawals are reported to be moving at a steady pace. Sulphur is still quoted at from $18 to $19 a ton, in bulk, at mine, according to quantity. The spot quotation is $20 a ton.

TALC.—The position of the talc market is practically unchanged. Demand for both the domestic and the imported product is about normal for the time of the year. The quotation on domestic talc ranges from $16 to $18 a ton, in bulk, at eastern mines. French talc is quoted at from $18 to $22 a ton, in bags, ship side.

New York Rates Case Heard at Washington

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., January 9, 1928.—Joseph A. Quinlan, traffic manager of the St. Regis Paper Company and affiliated concerns, and C. F. Moyer, superintendent of the St. Lawrence Division of the St. Regis group, have returned from Washington following the conclusion of hearings before the Interstate Commerce Commission on the petition of the St. Regis Paper Company, Taggart Brothers Company, Harrisville Paper Corporation, and Dexter Pulp and Sulphite Company, seeking lower freight rates on shipments of news print, wrapping paper and paper bags from Northern New York to points west of Buffalo and east of the Mississippi. The case is one of the most important affecting Northern New York mills in years and several thousand pages of testimony was taken at the hearings which consumed more than two weeks time. The Commission has ordered that briefs be filed by March 10.

The petition of the Northern New York mills was opposed at the hearing by a number of Ohio concerns including the Sorg Paper Company and Raymond Bag Company of Middletown while the G. H. Meade interests, owning mills in the United States and Canada, sided with the Northern New York firms.

C. J. Nichols, of the Sorg Paper Company, on the stand during the latter part of the hearing, said that his concern was having difficulty in marketing its paper bags and wrapping paper and if the reduction asked by Northern New York mills was granted they would have still greater difficulty. Mr. Nichols said that the company sold 20 per cent of its paper bags to the Raymond Bag Company.

No case in recent years affecting Northern New York mills has been followed with such intense interest. This interest was manifested by the large number of paper mill men in attendance at the Washington hearings.

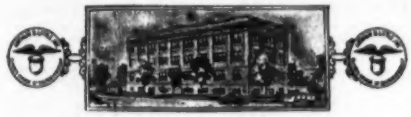
St. Regis Completes Big Pulpwood Cut

[FROM OUR REGULAR CORRESPONDENT]

TUPPER LAKE, N. Y., January 9, 1928.—The St. Regis Paper Company has just completed the greatest cut of coniferous logs for pulpwood ever essayed in one year by a Northern New York concern. The cut was made at McDonald on the New York and Ottawa Division of the New York Central. The logs were taken from the famous William Rockefeller tract of 30,000 acres which was acquired a few years ago by the McDonald lumber interests. Present operations are being conducted under the firm name of Bay Pond, Inc., with headquarters at Bay Pond.

This year's cut comprises many thousands of cords of pulpwood and was completed by seven sub-contracting jobbers. An idea of the magnitude of the cut may be realized from the fact that if the logs were placed single end to end they would reach 1,700 miles.

The huge output of pulp logs will be conveyed by railway trains to Deferiet where it will be apportioned among the mills of the St. Regis Paper Company to be manufactured into catalogue paper.



Pulp and Paper Mills, Power Plants, Chemical Plants

Engineering Design
Construction Supervision
Mechanical Equipment
Surveys
Investigations
Management
Process Development
Waste Utilization
Fuel Economy
Valuations

Arthur D. Little, Inc.

Chemists : Engineers : Managers

30 CHARLES RIVER ROAD CAMBRIDGE, MASS.

H. S. TAYLOR

Consulting Engineer

Member Am. Soc. C. E.—Member Am. Soc. M. E.
Member Eng. Inst., Can.—Member A. I. E. E.

PULP, PAPER, AND FIBRE MILLS
HYDRO-ELECTRIC AND STEAM POWER PLANTS
PLANS-SPECIFICATIONS-EVALUATIONS
REPORTS - CONSULTATIONS

Jefferson St. Arcade, Dayton, O. **Guarantee Bldg., Montreal, P. Q.**

GEORGE F. HARDY

M. AM. SOC. C. E. M. AM. SOC. M. E.
M. ENG. INST. CAN.

Mill Architect and Consulting Engineer

Langdon Building, 309 Broadway
New York

SPECIALTY

Paper, Pulp and Fibre Mills
Water Power Developments
Steam Power Plants
Plans and Specifications
Evaluations, Reports
Consultation

Cable Address.
"Hardistock"
A B C, 5th Edition
Bedford McNeill
Western Union
Bentley's

HARDY S. FERGUSON

CONSULTING ENGINEER

200 Fifth Avenue New York City

MEMBER AM. SOC. C. E.
MEMBER AM. SOC. M. E.
MEMBER ENG. INST. CAN.

PAPER PULP AND FIBRE MILLS INCLUDING BUILDINGS AND COMPLETE MECHANICAL EQUIPMENT
WATER POWER DEVELOPMENT DAMS, STORAGE RESERVOIRS and OTHER HYDRAULIC STRUCTURES
STEAM PLANTS

EXAMINATION
REPORTS
ESTIMATES OF COST
DESIGNS
SPECIFICATIONS
VALUATIONS

A paper mill's resolution!

"Resolved that in 1928 we will give Philadelphia Quartz Company's silicate a chance to improve our sheet at a saving to us. Further, that we will use this economical efficient material to displace more costly products, such as vegetable glues, floor hardeners, cements."

We are ready to help you keep such good resolutions. Try us.

Philadelphia Quartz Company

General Offices: Philadelphia
Chicago Office: 1907 Conway Bldg.

Clay

300 tons daily

AMERICAN MADE FOR AMERICAN TRADE

AT LAST!!

"An American Coating Clay"

H. T. Brand Coating Clay, Highest Grade Filling Clay, being used in some of the largest paper mills in the country. Send for samples and article on ***"An American Coating Clay."*** Forty-two years experience in American washed clays are back of this product.

Let us submit sample and quote you.

THE
EDGAR BROS. CO.
50 Church St.,
NEW YORK

Market Quotations

Quoted by Hepburn & Co., 74 Broadway, N. Y. City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	OFFERED
Advance Bag & Paper, 7s 1943	105	107
A. P. W. Pulp & Power, 7s 1945	101	102
American Writing Paper, 6s 1947	80	82
Bastrap Pulp & Paper, 6½s 1940	100	103
British Columbia Pulp & Paper, 6s 1950	85	90*
Beaver Products Corp., 7½s 1942	106	109
Bedford Pulp & Paper, 6½s 1942	98½	None
Brown Paper Co., 1st 5½s 1946	96½	99
Bryant Paper Co., 6s 1942	100½	102
Cape Breton Pulp & Paper, 6s 1932	101	103
Central Paper, 7s 1933	85	None
Central Paper Serial 6, 6½s 1942	89	...
Champion Coated Paper, 6s 1926 to 1932	99	...
Champion Fibre, 8s 1930	100	...
Champion Paper Corp'n, 1st 6s 1945	95	97
Continental Paper Products, 6½s 1943	88	91½
Cornell Wood Prod., 7½s 1937	100	104*
Crown Willamette Paper, 6s 1951	100	102
Donnaconna Paper, 6s 1940	101	102½
Dells Paper & Pulp Serial, 6s 1926-38	*95	...
Eastern Mfg. Co., 7s 1938	89	91
Eddy Paper, 7½s 1931	101	103
Escanaba Paper Serial, 6s 1928	99¾	...
Filer Fibre Serial, 7s 1926-39	95	...
Fort Orange Paper, 7s 1942	99	102
Fox River Paper, 7s 1931	99	...
Gair Company, 5½s 1942	96	99
Gilbert Paper Co., 6½s 1926-29	91	None
Hammermill Paper, 6s 1939	100	103*
Hoberg Paper & Fibre, 7s 1937	94½	96
Itaska Paper & Prairie River Power, J+5½s 1926-38	99	101
Itaska Paper, 1st 6s 1933-38	99	101
Kalamazoo Veg. Parchment, 6s 1938	98	...
Marinette & Menominee, 7½s 1936	100	103
Menasha Printing & Carton, 6½s 1939	99½	...
Monroe Paper Products, 7½s 1932	96	...
Munising Paper, 6s 1927-36	96	100
Nekoosa Edwards, 1st Ref. 6s 1928 to 1942	96	99*
Orono Pulp & Paper, 6s 1943	98	...
Orono Pulp & Paper, 5s 1941	94	...
Oswego Falls Corp., 6s 1941	98	100*
Oxford Paper, 6s 1947	104	...
Paepcke Paper Mills, 7s 1930	99	None
Parsons Pulp & Lumber, 7s 1928	97	...
Parker Young Co., 6½s 1944	96½	98½
Paterson Parchment Paper, 6s 1938	100½	102
Penobscot Chemical Fibre, 6s 1942	98	...
Queens City Paper, 7s 1932	95	100*
Richardson Co., 6s 1938	100	...
River Raisin Paper, 6s 1936	96	...
Spanish River Pulp & Paper, 8s 1941	108	110
Stevens & Thompson Paper, 6s 1942	93	95
St. Anne Paper, 6½s 1946	99	101
St. Croix Paper, 5s 1926-37	95	98*
St. Regis Paper Serial, 6½s 1926-35	99½	101
Tait Paper & Color Industries, 6s 1934	90	95
Taggart Bros. Co., 6s 1944	94	97
Ticonderoga Pulp & Paper, 5s 1930	94	98
Ticonderoga Pulp & Paper, 6s 1940	99	101
Warren (The S. D.) Company, 6s 1945	99	101
Wotab Paper, 6½s 1943	102	...
Westfield River Paper, 7s 1926-43	90	...
Whitaker Paper, 7s 1942	106	108

STOCKS	BID	ASKED
American Box Board, Pfd.	8	10
American Box Board, Com.	8	10
Am. Tissue Mills, 7% Pfd.	90	93
British Columbia P. & P., Pfd.	54	58
Brompton Pulp & Paper, 8% Pfd.	100	102
Brown Corpn., 7% Pfd.	100	104
Champion Fibre, 7% Pfd.	106	112
Diem & Wing, 7% Cum. Pfd.	90	...
Donnaconna Paper, Com.	75	80
Donnaconna Paper, Pfd.	104	112
Eastern Mfg. Co., 1st Pfd.	28	33
Great Northern Paper, Com.	70	75
Hammermill Paper, 7% Pfd.	105	110
Hinde & Dauch, Com.	135	...
Hinde & Dauch, Pfd.	100	...
Holyoke Card & Paper	160	None
Marathon Paper Mills, Com.	125	...
Midwest Box Co., Pfd. 8%	94	98
Midwest Box Co., Pfd. 6%	92	97
Louis De Jonge Co., 7% Pfd.	93	96
Oxford Papers, Com.	160	170
Oxford Paper Co., Pfd.	105	108
Penobscot Chemical Fibre, Com.	65	75*
Richardson, 7% Pfd.	160	...
Rubberoid	74	77
Seaman Container, Class B (par $1)	1	None Off.
Seaman Paper Co.	Wanted	None Off.
St. Croix Paper	150	170
St. Regis Paper Co., 7% Cum. Pfd.	101½	104½
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper, Com.	50	55
West Virginia Pulp & Paper, Pfd.	101	103
Whittaker Paper, 7% Cum. Pfd.	98	103

* Nominal.

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.35	@ 7.75
M. F.	6.25	@ 7.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	4.50	@ 4.75
Southern	4.25	@ 4.50
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

Boards—per ton—		
News	50.00	@52.50
Straw	53.50	@57.50
Chip	47.50	@50.00
Binders' Boards	70.00	@75.00
Sgl. Mla. Ll. Chip	57.50	@60.00
Wood Pulp	80.00	@85.00
Container	67.50	@72.50

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	28.00	@30.00
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@30.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.40	@ 4.25
Easy Bleaching	2.65	@ 2.80
No. 1 strong unbleached	2.40	@ 2.65
Mitscherlich unbleached	2.55	@ 3.25
No. 2 strong unbleached	2.30	@ 2.40
No. 1 Kraft	2.55	@ 2.75
No. 2 Kraft	2.40	@ 2.50
Sulphate—		
Bleached	3.65	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.20	@ 4.75
Easy Bleaching Sulphite	2.60	@ 2.75
News Sulphite	2.40	@ 2.65
Mitscherlich	3.25	@ 3.70
Kraft (Domestic)	2.60	@ 3.30
Soda Bleached	3.25	@ 3.50
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.85

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	11.75	@12.25
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.50	@11.00
Washables	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	6.75	@ 7.25
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.25	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.75	@ 6.50
Miscellaneous	4.75	@ 5.25
White, No. 2—		
Repacked	3.25	@ 3.75
Miscellaneous	2.75	@ 3.00
St. Soiled, White	2.25	@ 2.40
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.50	@ 1.60
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.25
Unbleached Cottons	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
New Mixed Cuttings	3.00	@ 3.50
New Dark Cuttings	2.75	@ 3.25
No. 1 White Linens	7.25	@ 8.00
No. 2 White Linens	5.50	@ 6.25
No. 3 White Linens	4.50	@ 5.00
No. 4 White Linens	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
Med. Light Prints	1.90	@ 2.10
Dutch Blue Cottons	2.25	@ 2.50
German Blue Linens	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 2.00
Lindsay Garments	1.85	@ 1.95
Dark Cottons	1.65	@ 1.70
Shoppery	1.55	@ 1.60
French Blues	2.25	@ 2.50

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.60	@ 1.65
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, heavy	1.60	@ 1.65
Bright Bagging	1.60	@ 1.65
Small Mixed Rope	1.30	@ 1.50
Manila Rope—		
Foreign	3.25	@ 3.60
Domestic	3.75	@ 4.00
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.40	@ 3.65
Hard, White, No. 2	2.90	@ 3.05
Soft, White, No. 1	2.75	@ 2.90
Flat Stock—		
Stitchless	1.40	@ 1.45
Overissue Mag.	1.40	@ 1.45
Solid Flat Book	1.30	@ 1.35
Crumpled No. 1	1.05	@ 1.10
Solid Book Ledger	1.90	@ 2.10
Ledger Stock	1.70	@ 1.75
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.85	@ .95
Container	.70	@ .80
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	2.00	@ 2.10
News—		
No. 1 White News	1.75	@ 1.85
Strictly Overissue	.85	@ .90
Strictly Folded	.55	@ .65
No. 1 Mixed Paper	.45	@ .50
Common paper	.35	@ .45

Prompt deliveries made from stocks in
NEW YORK
BOSTON
PHILADELPHIA
CHICAGO

TRADE U MARK

In One State

All of Heller & Merz' customers live in a state of satisfaction with these dyestuffs. Why? Because these are quality colors—because we know what you demand in service, and give it.

The HELLER & MERZ COMPANY
505 Hudson St., New York

Boston 287 Atlantic Ave. | Chicago 146 W. Kinzie St. | Philadelphia 114 Market St.

Springfield, Mass. 24 Lester Street

Factory—NEWARK, N. J.

SCHOPPER
PAPER TESTERS

THE WORLD'S STANDARD

TENSILE STRENGTH AND STRETCH TESTER

ORIGINAL DESK MICROMETER

Mechanically perfect and scientifically accurate. Absolutely dependable.

PAPER SCALES, FREENESS TESTER, FOLDING TESTER, CONDITIONING OVENS.

FOREIGN PAPER MILLS, Inc.
72 DUANE ST. NEW YORK
SOLE AGENTS
UNITED STATES CANADA

For reliable running and average long life

LINDSAY FOURDRINIER WIRES

are unsurpassed

We make them for the largest and fastest machines.

Cylinder Wires All Sizes

The Lindsay Wire Weaving Co.

Collinwood Sta. CLEVELAND, OHIO

WOODPULP AGENTS

PRICE & PIERCE, Ltd.,

17 EAST 42ND ST.
NEW YORK

East Engin... JAN 21 1928

Twines

(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¼	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.05¾	@	.06¼
Southern Kraft	.04½	@	.05
No. 2 Kraft	.05	@	.05¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue—			
24x36 Sheet	.07	@	.07¼
White Tissue—			
20x30 Sheet	.07¼	@	.07½
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip	45.00	@	—
Solid News	47.50	@	—
Manila Lined Chip	55.00	@	—
Container Lined—			
(Delivered Central Territory)			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.80	@	2.90
White Env. Cuttings	3.60	@	3.70
No. 1 Soft Shavings	2.50	@	2.60
No. 1 Mixed	1.00	@	1.05
No. 2 Mixed	.90	@	1.00
Ledger & Writings	1.55	@	1.65
Solid Books	1.20	@	1.30
Blanks	1.70	@	1.80
Krafts	1.90	@	2.00
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.50	@	1.65
Print Manila	.90	@	1.00
Folded News (oversize)	.60	@	.70
Old Newspapers—			
No. 1	.60	@	.70
No. 2	.55	@	.65
Mixed Papers—			
No. 1	.70	@	.80
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.08½	@	.09
Manila Sul., No. 1	.04½	@	.05
Manila, No. 2	.04	@	.04½
No. 2 Kraft	.05¼	@	.05½
No. 1 Kraft	.06	@	.06¼
Common Bogus	.02¾	@	—
Straw Board	60.00	@	65.00
News Board	47.50	@	50.00
Chip Board	42.50	@	45.00
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	85.00	@	90.00
No. 2, per ton	70.00	@	75.00
Carload lots	60.00	@	65.00
Tarred Felts—			
Regular	66.00	@	68.00
Slaters	70.00	@	72.00
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.55	@	1.70
Best Tarred, 3-ply	2.10	@	2.15
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.11½	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable	.04	@	.04½
Fancy	.05½	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	—	@	.04
New Black Soft	.05½	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03¾
New Canvas	.08	@	.09½
New Black Mixed	.05	@	.05½

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	3.50	@	4.00
Sisal Rope	1.25	@	2.00
Mixed Rope	1.10	@	1.25
Scrap Burlaps	1.50	@	1.75
Wool Tares, heavy	3.00	@	3.50
Mixed Strings	1.25	@	1.33
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	—	@	2.50

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.75	@	3.00
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.90	@	2.00
Writing Paper	1.65	@	1.75
No 1 Books, heavy	1.25	@	1.30
No. 2 Books, light	.85	@	.90
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	1.15	@	1.20
Container Manila	.90	@	1.00
Old Kraft	2.00	@	2.20
Common Paper	.55	@	.60
No. 1 Mixed Paper	.60	@	.75
Straw Board, Chip	.65	@	.75
Binders Board, Chip	.65	@	.75
Overissue News	.75	@	.85
Old Newspaper	.60	@	.70

Domestic Rags (Old)

White, No. 1—			
Repacked	4.50	@	5.25
Miscellaneous	3.50	@	4.00
White, No. 2—			
Repacked	.02¼	@	.02¾
Miscellaneous	.02	@	.02¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	1.60	@	1.75
Black Stockings	3.50	@	3.75
Roofing Stock—			
No. 1	1.75	@	1.80

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05½	@	.06½
No. 2 Kraft	.04½	@	.05
Common Bogus	.02¾	@	.02¾
Delivered New England points			
Straw Board, rolls	.009		57.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp lined board	55.00	@	60.00
Single White, patent coated board bender	75.00	@	82.50
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.75	@	3.10
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.60	@	—
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	1.95	@	2.00
No. 1 Books, Heavy	1.35	@	1.45
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.40	@	1.60
White Blank News	1.65	@	—
Old Kraft	2.00	@	2.20
Print Manila	.70	@	.80
No. 1 Mixed Paper	.47½	@	.52½
Overissue News	.70	@	.80
Old Newspapers	.60	@	—
Box Board, Chip	.65	@	—

Bagging

(Price f. o. b. Boston)

Gunny No. 1—			
Foreign	1.40	@	1.50
Domestic	1.50	@	1.60
Manila Rope and Strings—			
Foreign	—	@	3.00
Domestic	—	@	3.50
Mixed Strings	.90	@	1.00
Scrap Burlaps	1.37½	@	1.50
Wool Tares, heavy	—	@	1.50
New Burlap Cutting	2.25	@	2.37½

Domestic Rags (New)

(Price f. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.11	@	.11½
Silesias, No. 1	.07	@	.07½
New Unbleached	.09½	@	.10
Fancy	.05	@	.05½
Washable	.04	@	.04½
Cottons—According to			
Blue Overalls	.07	@	.07½
Blue Overalls	.07½	@	—
New Black, soft	.04	@	.04½
Khaki Cuttings	.04¼	@	.05½
Corduroy	.03	@	.03¼
New Canvas	.08	@	.08½

Domestic Rags (Old)

(Price f. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	5.50	@	5.75
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Thirds and Blues—			
Repacked	2.00	@	2.12½
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.70	@	—
No. 2	1.50	@	—
No. 3	1.10	@	—
No. 4	1.10	@	—

Foreign Rags

(F. o. b. Boston)

Dark Cottons	—	@	1.60
New No. 1 Shirt Cuttings	11.00	@	11.50
Dutch Blues	2.00	@	—
Lace Curtains	5.00	@	5.25
New Checks & Blues	4.50	@	4.65
Old Fustians	1.80	@	—

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¾	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.75	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.25	@	—
No. 1 S. C. (carloads)	8.25	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.75	@	—
No. 1 Coated and Litho	14.50	@	—
No. 2 Coated and Litho	13.50	@	—
No. 3 Coated and Litho	12 75	@	—
Coated tinted	15	@	—
Wrapping—			
Rag Brown	4.85	@	—
White Rag	5.25	@	—
"B" Manila	5.65	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.20	@	—
M. G.	7.35	@	—

Pulp

(F. o. b. Mill)

Ground wood	25.00	@	28.00
Sulphite easy bleaching	58.00	@	61.00
Sulphite news grade	55.00	@	58.00
Sulphite, bleached	75.00	@	—
Sulphate	65.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	3.00	@	—
White Blk, News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.47½	@	.52½
No. 1 Mixed Paper	.60	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.12	@	12¼
Fancy Shirt Cuttings	.06	@	06¼